

# THE SPECIALTY CROP BLOCK GRANT

THE BUY CALIFORNIA INITIATIVE





**DEAR SUPPORTERS OF CALIFORNIA AGRICULTURE,**

I am proud to present this progress report on The Specialty Crop Block Grant, a project that grew out of the efforts of many Californians. The California Congressional Delegation was instrumental in providing \$64 million in federal funds, and Governor Gray Davis and the California Legislature then provided additional support for this groundbreaking endeavor. When we set about creating this initiative many months ago, in October 2001, we asked you, the supporters and members of this great industry, to advise us on the best uses for this funding dedicated to aiding specialty crop producers in the Golden State. Your response was immediate, constructive and enthusiastic, guiding us to create an initiative that puts a great many projects and goals into action.

This initiative is designed to boost consumption of California's agricultural commodities, to raise awareness of California's agricultural heritage, and to give growers of specialty crops new tools to improve their work through research, food safety efforts and other projects. It is an ambitious undertaking; in fact, it is the first time in California's decorated history that we have created such a comprehensive effort to benefit our growers and producers.

I invite you to review this report and take a look at the progress we have made on behalf of the California agricultural community.

A handwritten signature in blue ink that reads "Bill Lyons". The signature is stylized and cursive.

CDFA Secretary William (Bill) J. Lyons, Jr.

**THE SPECIALTY CROP BLOCK GRANT:  
THE BUY CALIFORNIA INITIATIVE**

Gray Davis, Governor of California

William (Bill) J. Lyons, Jr., Secretary  
California Department of Food & Agriculture

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Select Any Section Below  
to View

# TABLE OF CONTENTS

## The California Grown Campaign

Leveraging California Agriculture's Golden Reputation  
(\$19 Million for the Buy California Marketing Agreement) ..... 2

## Growing Markets Beyond Our Borders:

California International Market Promotion for Agriculture (CIMPA)  
Program (\$7.6 Million) ..... 9

## Youth & Nutrition: Everybody Wins When Our Kids Eat Smart

5 a Day – For Better Health! Program (\$4.5 Million) ..... 12  
Linking Education, Activity & Food (LEAF) Program (\$4 Million) ..... 14

## Keeping An Eye On Our Food Supply

Western Institute for Food Safety and Security Works to Improve  
the Security of California's Food Sources & Systems (\$5 Million) ..... 15  
California Agricultural Emergency Response Team (\$2.7 Million) ..... 17

## Minor Crops Research

The California Minor Crops Council, the Western Region IR-4  
Program, and the University of California IPM/Pesticide Safety  
Education Program (\$1.1 Million) ..... 19

## Research For Sustainable Agriculture

The University of California's Specialty Crops Research Program  
(\$1.9 Million) ..... 21

## Specialty Crop Initiative

The California Institute for the Study of Specialty Crops  
(\$2.9 Million) ..... 23

## California Agricultural Research Initiative

California State University Fresno/California Agricultural  
Technology Institute to Manage an Applied Research Grants  
Program (\$2.7 Million) ..... 25

## Quarantine & Pest Risk Analysis

Grant to Sharpen California's Response to Invasive  
Agricultural Pests (\$760,000) ..... 27

## Buy California Initiative Competitive Grants (\$6.6 Million) ..... 30-40

The Specialty Crop Block Grant funds the components of the Buy California Initiative, each designed to provide a valuable new option or enact a market-generating project to benefit specialty crop producers. This report details the progress of each project since the grants were awarded, and describes their overall goals.

# CALIFORNIA GROWN:

## \$19 Million to Leverage California Agriculture's Golden Reputation



The concept of a statewide marketing campaign for agriculture began at the grassroots level. Thanks to pivotal funding from the U.S. Congress, the State of California, and the state's agricultural industry, that concept has become a reality. California Grown began as one of the key recommendations of the Governor's Central Valley Economic Task Force, and was thrust into the spotlight in 2001 when Governor Davis announced his support. The Governor approved \$5 million in seed money by signing SB 742, then aug-

mented the state funding to a total of \$6.5 million. This program created a partnership between government and industry to promote consumption of California-grown agricultural products to California consumers, benefiting both public health and the state's economy. The funding was further expanded with approximately 31 percent of the federal block grant funds, helping to implement a world-class agricultural campaign.

The program's goals include:

- Creating a multifaceted, multilingual campaign that reaches consumers wherever they get information about lifestyle, food, health, and nutrition.
- Increasing demand and consumption of California agricultural products among California's diverse consumer base.
- Creating a cross-commodity, generic marketing campaign developing a California identity that encourages increased consumer purchases.
- Using the California identity to create a point of differentiation for retailers, restaurants, consumers and other key audiences.

A marketing agreement was created to allow agricultural organizations to establish a marketing program under the guidance of an industry advisory board and CDFA. Since then, CDFA and the Buy California Marketing Agreement Advisory Board have developed an unprecedented generic agriculture consumer awareness campaign.



Be Californian Buy California Grown<sup>SM</sup>

The "CA GROWN" license plate was selected because it met all of the established criteria – it was attractive and memorable to consumers, it worked equally well with all agricultural products in the campaign, and its design lends itself to a host of creative applications.



## THE BUY CALIFORNIA MARKETING AGREEMENT

The Buy California Marketing Agreement is a voluntary, multi-commodity generic marketing board with representation from 26 agricultural commodities. It serves as an advisory board to CDFA. Its mission is to increase awareness, consumption and value of California agricultural products among consumers, and to boost California's economy.

Currently, 26 commodity organizations have signed on to the Buy California Marketing Agreement. These signatories have contributed money, time and support that have helped make the "California Grown" campaign a reality. Together, these industries represent over \$10 billion in annual agricultural sales. They represent virtually all sectors of California agriculture, and are essential industries that provide Californians and the world with food, shelter, clothing and fiber.

### CONSUMER RESEARCH: FINDING OUT WHAT CONSUMERS THINK

Once the Buy California Marketing Agreement was up and running, the first priorities were to conduct consumer research in order to determine what California consumers currently think about the importance of buying California grown products, to evaluate various advertising messages that might be compelling, and to establish benchmarks against which to measure the campaigns that would eventually be put in place. Not only did that research show that Californians do prefer to buy locally grown products, it also showed that the message most likely to help them keep that desire in mind and to influence sales is that buying California grown agricultural products is good for the state's economic health.

### DEVELOPING THE CAMPAIGN'S "SIGNATURE" MARK

After considering several proposals, the board selected a design based on a stylized blue California license plate with the vanity inscription "CA GROWN." This logo was selected because it met all of the established criteria – it was attractive and compelling to consumers (verified in focus groups), it worked equally well with all products in the campaign, and its design lends itself to a host of creative applications. The logo design, once approved by the board and CDFA, was then incorporated into all promotional and advertising activities for the campaign. The constant use of the "CA GROWN" image will lead to consumer recognition and association with California agriculture.

## BUY CALIFORNIA MARKETING AGREEMENT ADVISORY BOARD MEMBERS

Product	Signatory Organization
Apples	California Apple Commission
Asparagus	California Asparagus Commission
Avocados	California Avocado Commission
Aquaculture	California Aquaculture Association
Cherries	California Cherry Marketing Program
Citrus	California Citrus Mutual
Cling Peaches	California Cling Peach Board
Dried Plums	California Dried Plum Board
Figs	California Fig Advisory Board
Forest Products	California Forest Product Commission
Garlic	California Garlic Producers Association
Kiwifruit	California Kiwifruit Commission
Milk	California Milk Advisory Board
Lamb	California Sheep Commission
Nectarines	California Nectarine Admin. Committee
Peaches	California Peach Commodity Committee
Pears	California Pear Advisory Board
Plums	California Plum Marketing Board
Poultry	California Poultry Federation
Raisins	California Raisin Marketing Board
Salmon	California Salmon Council
Strawberries	California Strawberry Commission
Table Grapes	California Table Grape Commission
Tomatoes	California Tomato Commission
Walnuts	California Walnut Commission
Wine	Wine Market Council

These signatories have contributed money, time and support that have helped make the "California Grown" campaign a reality. Together, these industries represent over \$10 billion in annual agricultural sales.

## ADVERTISING: BRINGING “CALIFORNIA GROWN” TO CONSUMERS

With the freshly completed consumer research in hand, the advisory board and CDFA set out to create a memorable and effective consumer advertising campaign. Mering & Associates developed several concepts for commercials that fostered a favorable image of California agricultural products and effectively tapped into the pride that already existed in California agriculture. Based on the consumer research, it was Mering & Associates’ intent to develop commercials that would make it clear to consumers how important it is to seek out and buy California grown agricultural products.

Initial creative concepts were tested before focus groups – Californians who were asked to respond to the commercials in a small group setting. Based on these focus groups, some concepts were modified; others were eliminated from consideration. Finally, four approaches were presented to the Buy California board for consideration. Of those, three were selected for development and airing. The three produced concepts are:

### “Real Californians”

In these commercials (two were produced), a series of California consumers make whimsical comments that put the lie to various California stereotypes. “I have never met my inner child,” says a cook with a wry smile. “I don’t want to be an actress,” says a hard-working waitress. The second half of each commercial plays off the first comments by communicating a positive message about what it is to be a Californian: “But I am a Californian” answers a young mother in a grocery store. “And that’s why I buy California Grown.” The ads stress the impor-

tance all Californians should place on buying locally grown agricultural products. The spots end with the tagline “Be Californian. Buy California Grown” and a lingering shot of the campaign’s license plate logo.

### “Feed the Dream”

A second campaign approached the message in a more emotional way, to build pride in local products and the farmers and growers who produce them. This campaign, entitled “Feed the Dream,” features beautiful, scenic shots of agriculture production interspersed with family scenes and other vignettes, while a voice-over stresses the importance of California as “a place that grows things...radishes to redwoods” and encourages consumers to “Feed the Dream...Buy California Grown.”

### “De Buena Cosecha”

From the beginning of the campaign’s development, it was the board’s intention to reach California’s significant Spanish-speaking population through advertising and promotion. To reach this audience, a Spanish-language commercial was produced entitled “De Buena Cosecha” (“From a Good Harvest”). This spot echoes the feel of “Feed the Dream,” and utilizes vignettes of various consumers in settings around the state, while a voice-over explains the importance of buying California grown products.



**F**rom the beginning of the campaign’s development, it was the board’s and CDFA’s intention to reach California’s significant Spanish-speaking population through advertising and promotion. To reach this audience, a Spanish-language commercial was produced entitled “De Buena Cosecha” (“From a Good Harvest”).

The television campaign was launched on August 22, 2002, and is still running strong. The campaign is airing in markets that reach over 90 percent of Californians on a consistent basis. It is estimated that the initial phase of advertising reached 90 percent of the target audience (adults 25-54 years old) an average of 18 times each.

## **PUBLIC RELATIONS: REINFORCING THE MESSAGE**

While the consumer advertising campaign has been the primary means of reaching consumers, it is being supplemented by an ongoing public relations effort. The PR campaign seeks to surround Californians with messages about California agriculture.

### **“CA GROWN” Launch**

The Buy California program was launched in August 2002 at the State Fair in Sacramento. The centerpiece of the launch was a press and industry event held at the fairgrounds featuring Governor Gray Davis, Secretary of Food and Agriculture William (Bill) J. Lyons, Jr., Buy California Marketing Agreement advisory board members, and other representatives from government, industry and the press. The highlight of the event was Governor Davis’ speech introducing the commercials. “We are going to launch an ad campaign so that everybody knows that the words *California Grown* are equivalent to the very best in the world. That is the purpose of this campaign,” said Governor Davis in his speech before an audience of growers, industry members, legislators and press. He then introduced the television commercials to the crowd and conducted a press conference.

## **SURROUNDING CONSUMERS WITH GOOD NEWS**

Since the launch of the CA GROWN campaign, the program has sought to supplement the advertising campaign with an ongoing program of public relations. One preferred way to do this is to create events and opportunities for consumers to interact with the campaign. Over the summer, for instance, consumers auditioned for a part in an upcoming CA GROWN TV commercial at one of three “Casting Calls” held throughout the state. Or they can visit the campaign’s booth at the State Fair and learn about intriguing road trip destinations that highlight the agricultural legacy of the state. During the fall months, consumers can visit a “Mobile Farm Tour” created by the CA GROWN campaign. At this venue, consumers will get acquainted with California agriculture without leaving the city by taking part in several interactive displays and presentations. The Mobile Farm Tours provide urban communities opportunities to become personally involved and invested in the program.



**S**ince Governor Gray Davis launched “CA Grown” at the 2002 State Fair, the campaign has seen its exposure grow tremendously. Over the summer, consumers auditioned for a part in an upcoming CA Grown TV commercial at one of three “Casting Calls” held throughout the state.



## Industry Communications

The enthusiastic support of growers up and down the state is considered to be a critical element for a successful “CA GROWN” campaign. Partnering with stakeholders and contractors to build grower support and constant participation will continue to be part of the marketing agreement’s outreach effort. The program pursues frequent and intense communications with grower associations to provide information about the “CA GROWN” program, including details of how it will benefit growers, a calendar of events and regular grower newsletters.

### Retail Promotion: Getting the Message to the Point of Sale

California’s retailers have enthusiastically embraced the CA GROWN campaign as a means of supporting the state’s economy and drawing consumer attention to locally produced agricultural products. Each of the state’s major retailers is actively involved in the campaign – the CA GROWN logo is used in weekly store ads to highlight those

California grown products being featured by the store, in-store promotional materials are posted throughout the state, and some stores have begun to incorporate California grown messaging in their broadcast and outdoor advertising.

Meanwhile, at least seven retailers are using the “CA GROWN” identification

mark in their advertisements and highlighting the campaign through weekly advertisements and print ads.

A series of CA GROWN-sponsored in-store promotions was launched in April of 2003. These promotions feature dozens of products, customized point-of-sale displays, in-store demonstrations and many other elements. All are designed to make consumers more aware of the CA GROWN campaign and to spur increased sales of the featured products.

Retailers have been very active in planning ways to incorporate the campaign and signatory products in promotions. Discussions are currently in the works with Raley’s, Safeway, Vons, Save-Mart, Ralphs, Unified and Fleming, which all continue to use the logo in ads. Henry’s Market of Southern California has taken it a step further, featuring the blue license plate in a television commercial.

The campaign has also made inroads with lumber and home improvement stores, who are also beginning to feature the “California Grown” campaign and utilize CA GROWN point-of-sale materials.



Statewide retailers are already using the distinctive license plate in their advertisements and highlighting the campaign through their weekly promotions.



## Foodservice

Restaurants are where culinary and food trends begin. Many items that appear on menus “trickle down” to the retail market. Restaurant chefs, particularly those who have attained “celebrity status” via their restaurants, TV cooking shows and cook-books have a heavy influence over what the consumer eats at home and away from home. The Buy California Marketing Agreement has partnered with the California Restaurant Association to take the “CA GROWN” campaign into willing restaurants highlighting “California Cuisine” and providing opportunities to present the “CA GROWN” message. The “CA GROWN” logo will be placed on menus with cuisine from California as well as on promotional materials such as table tents, menu clips and signage.

## Licensing Agreement: Expanding the Reach

The Buy California Marketing Agreement has developed licensing agreements for the service mark and certification mark to signatories. The service mark is the “CA GROWN” license plate accompanied by text, such as “Be Californian. Buy Californian Grown.” This is used on items to make reference to the campaign – such as point of sale material, letterhead, banners, etc. The certification mark is the blue license plate logo alone. It is being used to signify that product is, in fact, from California.

Consumer research indicates that the CA GROWN campaign is successfully increasing demand for and sales of California agricultural products. According to the study, conducted by Rose Research, 44% of consumers who could recall “CA GROWN” advertising said they are actually buying more California grown agricultural products today than they were six months ago, compared to just 19 percent of those who were not aware of the ads.

Other highlights of the study included:

- 75 percent of consumers say they are inclined to buy California agricultural products, up eight percent from benchmark research, conducted in March of 2002 before the campaign aired.
- 37 percent of consumers now say it is important to purchase California grown products, an increase of 23 percent over the benchmark period.
- 66 percent of California citizens were aware of any advertising/promotion for California agriculture products, and 38 percent were specifically aware of the “California Grown” campaign commercials.
- Of those Californians aware of the commercials, 61 percent correctly restated that buying California grown products is good for the state’s economy, farmers and California consumers.

Consumer research indicates that the CA GROWN campaign is successfully increasing demand for and sales of California agricultural products.



**S**tatewide retailers are already using the distinctive license plate in their advertisements and highlighting the campaign through their weekly promotions.

The research shows that the campaign is succeeding in its goals and objectives, and the consumers are responding positively to the message that buying California grown products is good for them, for the state, and for farmers and farm communities.

### Economic Impact Study

In a statewide economic impact study, findings reveal that relatively minor shifts in Californians' purchasing decisions have a major impact on the state's economy and job outlook.

According to study findings, if Californians increase purchases of California grown products by just 10%, it would result in 5,416 new jobs throughout the state and nearly \$1.35 billion in additional spending due to the increased business activity. In addition, the added economic activity would generate \$183 million in taxes for local and state governments. Importantly, these figures do not assume an increase in any household spending, simply documenting the effect of choosing the products of California's farms, ranches, forests, and fisheries over products available from out-of-state.

If California grown purchases are increased by 25% – which equates to less than \$3.95 per week for the average Californian – the resulting economic impacts become even more substantial. In fact, a 25% increase in the purchase of locally grown products would result in 13,450 new jobs throughout the state and \$3.36 billion in additional spending. And, the growth in business activity would generate \$604 million in taxes for local and state governments.

With the support of California Congressional representatives, the Governor, the State Legislature, and the California Department of Food and Agriculture, the Buy California Marketing Agreement has created a program that can and will go a long way toward creating a more positive economic environment for California's crucial agricultural industry.



Be Californian  
Buy California Grown<sup>SM</sup>



# GROWING MARKETS BEYOND OUR BORDERS

## **\$7.6 Million for California International Market Promotion for Agriculture (CIMPA)**

With nearly 18 percent of California's crop and livestock commodities sold overseas, the future of California agriculture depends upon maintaining, expanding and improving access to international markets. Now more than ever, growers' global competitiveness is key to their survival and continued advancement.

Despite new exporting resources and programs, significant challenges for California's agricultural exporters remain. Market-distorting subsidies continue to give foreign competitors an unfair price advantage. California's agricultural exporters are confronted with various conditions that make their products more expensive overseas, such as fluctuations in currency values. And non-tariff trade barriers continue to keep some of our products out of overseas markets. These challenges, among many others, stunt California's agriculture industry from increasing its competitiveness in the international marketplace.

Increasing demand for California food and agricultural products internationally will help sustain California farmers and ranchers in an increasingly competitive global environment. The following projects aim to do just that. The proposals were considered on a competitive basis, and the awarded projects leverage additional funding with cash and in-kind matching funds.

**R**aising awareness of and demand for California agricultural products internationally will help maintain the sustainability of California farmers and ranchers in an increasingly competitive global environment.

### **CIMPA: INTERNATIONAL MARKET PROMOTION GRANTS**

#### **Babé Farms**

Santa Maria-based Babé Farms grows, processes and ships gourmet lettuces and specialty vegetables. The company will use grant funds to participate in trade shows and meet with potential buyers in Canada, Germany, Japan, Mexico, Hong Kong and Taiwan.

#### **Cal/West Seeds**

Cal/West Seeds of Woodland is a grower-owned seed cooperative. Grant funds will expand markets for forage and turf seed in Argentina, France, Germany, Greece, Italy, Mexico, Saudi Arabia, Spain and Switzerland through advertising, public relations, trade shows and seminars.

#### **California Certified Organic Farmers**

Based in Santa Cruz, California Certified Organic Farmers is the largest organic certification and trade association in California. The organization will use grant funds to promote organic products in Europe, Asia, and Canada through trade shows, seminars and trade delegations.

#### **California Cherry Advisory Board**

The Lodi-based California Cherry Advisory Board manages promotion, market access, and research for 450 sweet cherry growers and packers. The organization will promote the sale of cherries in Japan through public relations and advertising activities.



**CIMPA: INTERNATIONAL MARKET PROMOTION GRANTS (CONTINUED)****California Dry Bean Advisory Board**

The California Dry Bean Advisory Board, based in Dinuba, conducts research and promotional activities for the state's 1,500 bean growers. The organization will use grant funds to host bean paste manufacturers from Japan in an effort to boost sales of baby lima beans.

**California Grape and Tree Fruit League**

The Fresno-based California Grape and Tree Fruit League represents growers, packers, shippers and marketers of table grapes and tree fruit. Grant funds will help develop a database on technical trade barriers in the stone fruit industry's top 15 export markets.

**California Pure Pistachios**

California Pure Pistachios, a division of Los Angeles-based Paramount Farms, is California's largest grower of pistachios. The company will engage in marketing and public relations activities to boost sales of pistachios in Australia, Indonesia, Malaysia, and Thailand.

**California Raisin Marketing Board**

The Fresno-based California Raisin Marketing Board promotes raisin sales on behalf of the state's raisin industry. The organization will develop demand for raisins in Africa, Latin America, South Asia and the Newly Independent States of Central Asia through participation in U.S. food assistance programs. An ancillary program will promote raisins through technical assistance seminars with food manufacturing and baking companies.

**California Salmon Council**

The California Salmon Council, based in Folsom, develops and expands market opportunities for the state's 2,400 commercial salmon fishermen. The grant will pay for travel to Japan to meet with potential buyers, as well as hosting Japanese buyers in California.

**California Table Grape Commission**

The Fresno-based California Table Grape Commission is the promotional arm of the state's fresh grape industry. The organization will promote the sale of grapes in China, Hong Kong and Taiwan through promotional television programming.

**California Tomato Commission**

The California Tomato Commission, based in Fresno, is responsible for marketing the state's fresh tomatoes. The organization will use the grant funds to conduct consumer research, public relations and marketing activities in Canada and Central America.

**California Tree Fruit Agreement**

The Reedley-based California Tree Fruit Agreement represents more than 2,000 growers of peaches, plums and nectarines. The organization will engage in consumer research, advertising, and in-store demonstrations in order to boost sales in Canada, China, Japan and Mexico.

**California Wild Rice Advisory Board**

The Yuba City-based California Wild Rice Advisory Board oversees promotion, research and grading standards for wild rice. Grant funds will pay for print materials, tradeshow participation and promotional activities to expand exports to Europe and Russia.

**Capurro Marketing**

Capurro Marketing of Moss Landing is a grower, shipper and distributor of fresh vegetables. The company aims to boost sales of its products in Canada, Japan, Mexico and the United Kingdom through buying missions, trade conventions, advertising, and retail programs.

**Carriere and Sons Partnership**

The export facility at Glenn-based Carriere and Sons Partnership processes four million pounds of walnuts annually. The company will use grant monies to contract with the Northern California World Trade Center to conduct market research and trade preparedness training and participate in trade shows.

**Delicato Family Vineyards**

Napa-based Delicato Family Vineyards currently distributes its wine in 24 countries. The grant funding will be used for advertising, direct mail, promotions and trade show activities in Canada and the United Kingdom.

**DFA of California**

DFA of California assists dried fruit and tree nut growers and processors with marketing and regulatory activities. The organization will work to resolve a variety of trade barriers to the European Union market through a series of meetings with EU officials.

**Diamond Walnut Growers**

Diamond Walnut Growers of Stockton is a marketing cooperative owned by approximately 1,900 walnut growers. The grant will finance marketing and sales activities in the United Kingdom.

### **Kendall-Jackson Wine Estates**

Kendall-Jackson Wine Estates, based in Sonoma, produces over four million cases of wine annually. The company will use grant funds for buying missions, public relations materials and advertising to promote wine sales in Canada and Asia.

### **Marcus Foods Co. Fisheries Division**

The Fisheries Division of Marcus Foods Co. catches more than 20,000 metric tons of fish annually off the coast of California. The company will use the grant funds for trade shows, advertising and public relations activities to increase sales in Asia, Europe, and Latin America.

### **Mariani Nut Company**

Mariani Nut Company of Winters processes walnuts and almonds from 700 growers. Grant funds will help the company increase walnut sales in Germany through promotional materials, advertising and trade show participation.

### **Mariani Packing Company**

Mariani Packing Company of Vacaville is the largest independent fruit processor in the United States. The company will use grant funds to promote its retail brand in China, Japan, Korea and Taiwan.

### **Mid Valley Nut Company**

Mid Valley Nut Company of Hughson is an independent walnut packer and processor. The company will use grant funds to promote walnut sales through trade shows in Turkey and Canada and advertising activities in Korea.

### **Robert Mondavi**

Napa-based Robert Mondavi has been in the winemaking business since 1966. The company will use the grant funds to conduct Web-based market research in Canada, Germany, Japan, Switzerland and the United Kingdom.

### **PacRim Wines**

PacRim Wines of Ukiah is the export agent for more than 50 California wine brands in the Japan market. The company will use the grant funds to promote wine sales in Japan through trade shows, buying missions, promotional activities, public relations and advertising.

### **Round Hill Cellars**

Round Hill Cellars of St. Helena has been producing wines for more than 25 years. Grant funds will help the company promote wine sales in Denmark through advertising activities.

### **Sunkist Growers**

Sherman Oaks-based Sunkist Growers is a citrus marketing cooperative whose members produce more than half of the oranges, lemons and grapefruit grown in California. Sunkist will use the grant funds for an advertising campaign to promote the sale of oranges in Canada.

### **Sun-Maid Growers of California**

Kingsburg-based Sun-Maid Growers of California is the world's largest processor and marketer of raisins. Sun-Maid will promote the sale of raisins in China through trade shows and seminars, advertising and marketing.

### **Sunsweet Growers**

Sunsweet Growers of Yuba City is a grower-owned cooperative that processes and markets dried plums. Sunsweet will use grant funds to market products containing prune concentrate in China.

### **Sunview Marketing International**

Sunview Marketing International of Delano is a grower and shipper of fresh grapes. The company will use grant funds for consumer and retailer education activities in the United Kingdom.

### **Sutter Home Winery**

St. Helena-based Sutter Home Winery has been producing wines in California since 1947. The company will promote wine sales in the United Kingdom through print advertising.

### **Trinity Fruit Sales Company**

Trinity Fruit Sales Company of Fresno is a marketer of fresh fruits and nuts. The company will promote sales of apples to the United Kingdom, plums and kiwifruit to Mexico, and cherries and nectarines to Japan through retail promotions, trade shows, and advertising.

### **Valley Fig Growers**

Valley Fig Growers is a grower-owned marketing cooperative based in Fresno. The cooperative will conduct reverse trade missions and educational seminars aimed at boosting sales of dried fig products in Japan.

### **Wine Institute**

Wine Institute is the public policy advocacy association of California wineries. The organization will partner with wine associations in the Sonoma, Napa and Paso Robles regions to conduct public relations and advertising activities throughout Asia and Europe.



# YOUTH & NUTRITION: EVERYBODY WINS WHEN OUR KIDS EAT SMART

**G**rand Prize  
Winner Mireya Baca  
of Jefferson Elementary  
School in Lindsay, CA  
created this master-  
piece for a poster  
contest as part of  
her school's 5 a Day  
Power Play Campaign  
activities.

## **\$8.5 Million for 5 a Day, LEAF Project Grants to Improve Children's Health by Increasing Fruit and Vegetable Consumption**

Of all the goals pursued by the Buy California Initiative, perhaps none is more noble than providing more nutritious meals for California's kids. Childhood obesity is practically an epidemic in our schools, leading to problems later in life such as diabetes, asthma and other debilitating diseases and conditions. The initiative aims to help correct this problem with two major grants, one to enhance the ongoing "5 a Day" project and the other to the Linking Education, Activity and Food (LEAF) program. These projects take divergent paths, but both seek to lead children to better health.

### **5 A DAY – A PROVEN PROGRAM (\$4.5 MILLION)**

When CDFA hosted sessions around the state in late 2001 and asked members of California's agricultural community to recommend their preferred uses for these grant funds, one of the most common answers was "support 5 a Day." Growers and consumers alike recognize this long-standing and successful program encouraging all of us to eat at least five servings of fruits and vegetables each day.

With grants to support the national Children's "5 a Day Power Play" Campaign and the national 5 a Day project, the Buy California Initiative helps expand nutrition efforts that encourage consumption of California-grown fruits and vegetables nationwide. The campaign is administered by the California Department of Health Services in conjunction with the Public Health Institute, and encourages children ages 9-11 to consume the prescribed five servings and to engage in 60 minutes of physical activity each day.

Upon receipt of the grant funds, the California campaign awarded 11 outreach grants to regional lead agencies. These agencies spread the 5 a Day message through various outlets in school cafeterias and gardens, youth organizations, after-





school and summer programs, farmers' markets, supermarkets, restaurants, and the media. The regional efforts all draw from the strength and resources of the nationwide campaign, but the additional grant funds from the Buy California Initiative provide flexibility that allows the lead agencies to pursue specific programs targeting their local audience.

### **Spotlight: Gold Coast Region's "Eat Out Smart" Project**

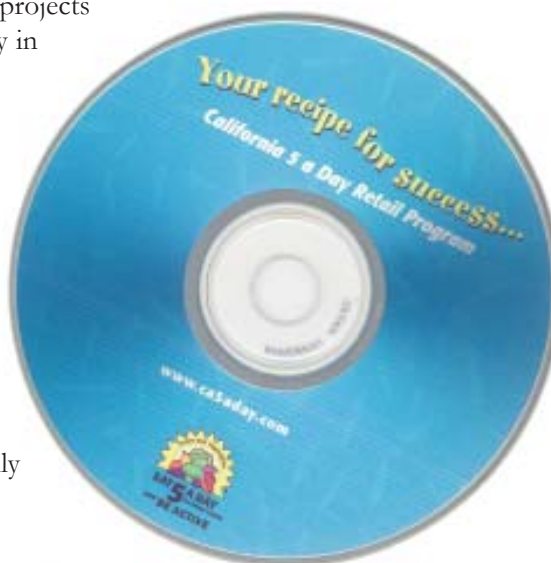
This campaign was funded entirely by the Buy California Initiative through a regional grant. The project encouraged low-income families to select at least one fruit or vegetable option from a local restaurant menu in the cities of Santa Paula and Carpinteria. When they did, the participating restaurants provided additional fruit and vegetable dishes at no cost to the customer. The establishments also set up educational table tents, advertised the "Eat Out Smart" program in store-front windows, and provided "Eat 5 a Day" family fun packets to customers. The packets were filled with bilingual information on the importance of fruits and vegetables in the diet and easy tips on how to increase consumption of these key food items. The "Eat Out Smart" promotion got off to a great start with a kick-off health fair event and parent meetings at local schools. Local media coverage further spread the word about the project.

### **Spotlight: Statewide Retail Program**

The California 5 a Day Retail Program offers retailers statewide a variety of tools and resources to increase the purchase of fruits and vegetables among low-income Californians. Point-of-purchase materials such as posters, recipe cards, cookbooks, and a CD-ROM containing child-oriented nutrition information are among the options available to retail outlets. Once a store expresses an interest in the program, such as by ordering materials through the program's web site or by talking to project staffers at a community function, a local 5 a Day representative contacts the store directly to make sure the store's staff receives all of the assistance they need to carry out their 5 a Day project. 5 a Day staff members also maintain regular contact with their stores to replenish signage and other supplies, and to provide updated materials for new and seasonal promotions.

Many of the retail representatives choose to go one or two steps further, hosting cooking demonstrations in their stores and incorporating 5 a Day messages into their participation in community-based events.

These are just a few of the many projects that are part of the 5 a Day family in California. Thanks to the Buy California Initiative grant, this proven program has been expanded to additional regions and neighborhoods, and enhanced to include brand new ideas. The Buy California Initiative took the most direct route to increased consumption of California's fruits and vegetables by kids and low-income families by investing in a perennially successful program like 5 a Day.



The 5 a Day campaign awarded grants to 11 regions:

- Central Coast/  
Monterey Bay
- Central Valley
- Gold Coast
- Gold Country
- Inland Empire
- Los Angeles
- North Coast
- Orange County
- San Diego
- San Francisco
- Sierra Cascade

## LINKING EDUCATION, ACTIVITY & FOOD (LEAF) PROGRAM (\$4 MILLION)

This substantial grant augments funding for the implementation of the Pupil Nutrition, Health and Achievement Act of 2001 (SB 19), which sets nutritional standards for all foods and beverages sold on school campuses. The Linking Education, Activity and Food (LEAF) program, administered by the California Department of Education (CDE), has put the Buy California Initiative grant funds into action by awarding grants to several school districts to develop policies pursuant to the new law, and then to conduct 21-month pilot programs based on the new policies. The pilot programs will put more fruits and vegetables in school meals; expand vending machine choices to include fruit, non-fried vegetables, water, low-sugar foods and beverages, and other more healthful choices; establish and maintain school gardens; conduct field trips to local farms and farmers' markets; provide professional development for child nutrition and food service staff; and enact other measures to increase consumption of fruits and vegetables on campus. The measures to be implemented at each district are set by local advisory committees created by the Public Nutrition, Health and Achievement Act.

The Linking Education, Activity and Food (LEAF) program, administered by the California Department of Education (CDE), has put the Buy California Initiative grant funds into action by awarding grants to several school districts:

Montebello Unified School District  
Western Placer Unified School District  
Benicia Unified School District  
San Diego City Unified School District  
Los Angeles Unified School District  
Hawthorne Unified School District  
Carpinteria Unified School District  
Orcutt Union Unified School District  
Kernville Union Unified School District  
Sacramento City Unified School District  
Berkeley Unified School District  
San Francisco Unified School District



“Campus Cuisine” carts at Monroe High School and a school garden at Wallace Middle School are among the recent achievements of LEAF grants provided by the Buy California Initiative.



# KEEPING AN EYE ON OUR FOOD SUPPLY:

## **\$5 Million for New Institute Works to Improve Security of California's Food Sources & Systems**

The word “security” has taken on new significance in this new century, with both international and domestic concerns riding as high as at any time since the peak of the Cold War. While the primary discussions pertain to the military and terrorism, the need to review and solidify safety and security measures has permeated the public policy realm—and for good reason.

The Western Institute for Food Safety and Security (WIFSS) was borne of the agricultural community's need to ensure the safety of our food supply and the security of the many systems, sources, farms and factories that comprise the food supply chain. The institute has been able to hit the ground running by drawing upon the established expertise of professionals at the California Department of

### **WIFSS BOARD OF DIRECTORS**

Chuck Ahlem, Industry Representative, Turlock, CA

Larry Barrett, Chief, Food Drug and Radiation Safety, California Department of Health Services

Richard Breitmeyer, Director, CDFA Animal Health and Food Safety

Satya Dandekar, Professor and Chair, U.C. Davis School of Medicine

Jerry Gillespie, Director, Western Institute for Food Safety and Security

Lovell (Tu) Jarvis, Associate Dean, U.C. Davis College of Agricultural and Environmental Sciences

AG Kawamura, Industry Representative, Irvine, CA

Peter Larkin, Industry Representative, Sacramento, CA

Bennie Osburn, Dean, U.C. Davis School of Veterinary Medicine

The Western Institute for Food Safety and Security (WIFSS) was borne of the agricultural community's need to ensure the safety of our food supply and the security of the many systems, sources, farms and factories that comprise the food supply chain.



The prospects and goals of the newly created WIFSS are ambitious, but the experience of its staff and the progress of the project to date indicate the auspicious arrival of a new and worthy leader in the field of food safety and security.

Food and Agriculture (CDFA), California Department of Health Services, and the University of California. While permanent facilities may take some time to design and equip, the work of the institute is already well underway. Additional funding sources have been identified to extend the impact of the Buy California Initiative grant, and a scientific advisory board has been selected to judge the merits of research projects proposed for funding through the initiative. In fact, the first round of research proposals is in and formal review is under way.

### THE INSTITUTE'S RESEARCH PRIORITIES:

- More rapid and accurate diagnostic tests for food and waterborne pathogens (viruses, bacteria, and parasites), toxins, and chemicals (pesticides and others)
- Technical or practical innovations that improve food safety and security
- Risk analysis of food safety and security at California borders (sea, air and land)
- Analysis of emerging food or waterborne diseases
- Mechanisms underlying foodborne ailments
- Risk analysis of food and water bio-security threats
- Food system waste disposal including animal carcasses
- Food safety and security conference organization and high-priority teaching materials development
- Information management related to food safety and security

### WIFSS LEADERSHIP

Dr. Jerry Gillespie has been selected as director of the institute, and has already brought to the table principals from the participating agencies as well as peripherally related agencies in California, the nation, and the international community. Dr. Gillespie and his staff have begun the task of opening lines of communication with organizations as diverse as the British Agriculture Representative, the USDA Food Safety Inspection Laboratory, and the National Institute for Animal Agriculture, among many others. These contacts help to generate top-level research proposals, identify promising programs and projects, and ensure timely notification in case of food-safety incidents that might benefit from the institute's involvement.

### FUTURE PROJECTS

- WIFSS is working with CDFA to develop a two-part conference on agro-terrorism. The conference would include "train the trainer" activities to prepare first-line personnel to pass on lessons in food safety and security. Regional meetings would then be held specifically for veterinarians and producers.
- WIFSS is developing a national workshop and conference on antimicrobial resistance, covering the scientific and practical issues of antimicrobial resistance in agriculture, veterinary medicine, and general medicine.

The prospects and goals of the newly created WIFSS are ambitious, but the experience of its staff and the progress of the project to date indicate the auspicious arrival of a new and worthy leader in the field of food safety and security.

# EXPECTING THE UNEXPECTED

## The California Agricultural Emergency Response Team (\$2.7 Million)

Over the past few years, the California Department of Food and Agriculture has grappled with outbreaks of several pests and diseases that pose very serious threats to the agricultural community. Recent and ongoing programs include a \$20 million effort to combat bovine tuberculosis, a \$200 million Exotic Newcastle Disease project, a \$20 million Mexican fruit fly quarantine, and a \$150 million program to address the glassy-winged sharpshooter and Pierce's disease. Add to that the internationally based threat of "mad cow" disease (bovine spongiform encephalopathy, or BSE), recalls of food products, and the influx of various other pests and diseases such as aquatic weeds, the Japanese beetle and Sudden Oak Death, and it's not hard to see why emergency preparedness must be a priority for California agriculture. Each case constitutes an agricultural emergency that requires a swift, expert response to protect California's consumers, food supply, producers, livestock and crops.

The longstanding approach to these situations—and it has been a largely successful one—has been to temporarily redirect management and technical staff specializing in the particular subject of concern. While this approach has resulted in resolution of each recent agricultural emergency, the experience of responding to a seemingly endless series of emergencies has highlighted the need for a primary response group that would alleviate the tendency to "reinvent the wheel" each time a particular part of the CDFA agency is faced with an emergency. To overcome these challenges, CDFA is drafting plans to create the California Agricultural Emergency Response Team (CAERT). The creation of this team is wholly funded by the Buy California Initiative.

California produces over 350 agricultural commodities. Because agriculture in California is so diverse, CDFA is necessarily comprised of divisions and subdivisions responsible for tracking remarkably specialized segments of agricultural production. Largely due to this degree of specialization, CDFA's various offices and programs must operate largely independent of each other, so that, for example, the staff dealing with a crop emergency such as a fruit fly infestation would not be immediately engaged with the staff dealing with a livestock emergency such as bovine tuberculosis. While a high degree of specialization in California's agricultural oversight is tremendously beneficial to the industry and to the consumer, it does pose certain challenges when it comes to responding to an agricultural emergency.

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This new venture will make future agricultural emergency response faster, less expensive and more effective. That's a good investment, and it will improve California's ability to provide a safe and dependable food supply.

One challenge that repeatedly arises with new emergencies is the need to simultaneously adhere to the rules and regulations of local, state, federal and even international authorities. This challenge is often met by forming a cooperative program that brings the various agencies and personnel together in a central location to share expertise, data and equipment. In order to allow technical specialists at CDFA to concentrate on the situation at hand, CAERT will be responsible for organizing CDFA's involvement in these cooperative projects, engaging the principals of the other agencies, and resolving the many issues that arise during the critical first days and weeks of these ambitious undertakings. The insertion of CAERT in these situations would take advantage of the entire department's resources, activating facilities, equipment and personnel based upon need, rather than depending solely on the resources of a single location or division of the department.

Projects such as the Exotic Newcastle Disease Task Force and the Mexican Fruit Fly Quarantine, both in full operation at the time of this publication, provide solid examples of successful emergency management efforts. The development and addition of the emergency response team will improve upon these models by applying the successes of these and previous projects to create a standardized approach for future emergencies. This new venture will make future agricultural emergency response faster, less expensive and more effective. That's a good investment, and it will improve California's ability to provide a safe and dependable food supply.

### **SPOTLIGHT: MEDFLY INFESTATIONS AND THEIR ORIGINS (1997-2001)**

The Mediterranean fruit fly is among the most threatening pests to California agriculture. CDFA has responded successfully to several Medfly infestations over the years. Experience and scientific analysis suggest that more eradication efforts will be needed. Of the last seven Medfly infestations in Southern California, DNA analysis shows that all but one resulted from separate, unrelated introductions of the pest. In addition to these infestations originating from Central America, Hawaii and South America, infested produce intercepted at California ports shows that infestations could come from many other countries around the world. Establishment of the new California Agricultural Emergency Response Team will improve the speed and decrease the cost of future eradication efforts.





# MINOR CROPS RESEARCH

## **\$1.1 Million Grant to the California Minor Crops Council, the Western Region IR-4 Program, and the University of California IPM/Pesticide Safety Education Program**

Effective pest management is an ongoing challenge for specialty crop producers. Even more difficult is developing successful tools that have the least intrusive impact on the environment and public health. Three leading organizations in the field of minor crops research formed a partnership for the purpose of developing reduced risk pest management practices and products for specialty crops. The partners are:

- **The California Minor Crops Council**, a grower-supported organization that facilitates transition to integrated pest management (IPM) systems.
- **Western Region IR-4 Program**, a USDA-funded organization, housed at UC Davis, which conducts the required research to address pesticide tolerances in food. These tolerances are required for the registration of pesticides on food crops.
- **UC Statewide IPM Program/Pesticide Safety Education Program**, designed and supported by the UC system to develop programs and materials to increase human health and safety awareness in agricultural systems.

Together, these entities were awarded a total of \$1.1 million to carry out their respective projects.

### **SPECIFIC PROJECT OBJECTIVES**

The Minor Crops Research component of the Buy California Initiative seeks to accomplish several objectives:

1. Develop strategic plans to determine the critical research, regulatory and educational needs required for growers to transition to integrated pest management programs.
2. Conduct tours to increase understanding among decision makers of the complex issues facing specialty crops in California.
3. Develop better infrastructure for existing field research centers and support the development of two additional centers in California.
4. Develop infrastructure needed to support IR-4 research projects in California.

Effective pest management is an ongoing challenge for specialty crop producers. Even more difficult is developing successful tools that have the least intrusive impact on the environment and public health.

5. Support technology and communications upgrades to the Western Region IR-4 program.
6. Increase awareness of environmental and worker safety when using crop protection products.
7. Develop educational materials and curricula on worker safety for training programs for instructors, growers and staff.
8. Conduct safety-training sessions with community groups.

### **ACCOMPLISHMENTS TO DATE**

- Work groups have been developed and strategic planning meetings have been conducted to help olive, avocado and dry bean producers adopt integrated pest management practices.
- A specialty crop tour date has been set for July 2003.
- New field research centers have been established at UC Davis and UC Riverside. Also, two other field research centers—the Kearney Ag Center and the Desert Research Station—are upgrading their research equipment.
- The Environmental Horticulture Department at UC Davis has committed to becoming the IR-4 Ornamental Research Center for California.
- Equipment upgrades have begun at the Western Region IR-4 laboratory.
- Two field residue projects have been initiated to help establish pesticide tolerances for product registration.
- A newly hired pesticide educator is identifying risk issues and informational gaps in preparation for development of the pesticide safety program.
- An advisory group was established to help identify training needs and provide guidance on pesticide safety education.

**A**ccomplishments to date include the establishment of new field research centers at UC Davis and UC Riverside. Also, two other field research centers—the Kearney Ag Center and the Desert Research Station—are upgrading their research equipment.

# RESEARCH FOR SUSTAINABLE AGRICULTURE

## **\$1.9 Million Grant to University of California for a Specialty Crops Research Program**

The University of California Specialty Crops Research Program, in coordination with the UC Statewide Integrated Pest Management Program and the Sustainable Agriculture Research and Education Program (SAREP), has initiated a research program focused on sustainable agriculture.

The fertility of California's valleys and the productivity of its growers provide an unsurpassed field laboratory for researchers. This program seeks cost-effective ways for farmers to develop new market opportunities by growing organic crops or employing other reduced-input production methods. Specialty crop growers reap the benefits of improved environmental stewardship while they identify new niche markets, pest prevention and control alternatives, and other sustainable practices.

The goals of the Specialty Crops Research Program are to support research and outreach that will provide clear benefits to California's specialty crop industries and complement other programs of the Buy California Initiative. The University of California is committed to projects centered on sustainable agriculture as well as reduced-input and reduced-risk farming.

### **RESEARCH PROJECTS**

Research projects will focus on four priority research areas:

- Management Systems for Ecologically Based Agriculture, including Organic Production
- Agricultural Enhancement of Environmental Quality
- Biological Control of Pests
- New Crops and Products

**S**pecialty crop growers reap the benefits of improved environmental stewardship while they identify new niche markets, pest prevention and control alternatives, and other sustainable practices.

## Sustainable Agriculture Research Projects

Lead Researcher	Affiliation	Project
Dr. Walt Bentley	Kearney Ag Center	Developing a Management Program for San Jose Scale and Oriental Fruit Moth for Organic and Non-Organic Stone Fruit Farmers
Dr. Eduardo Blumwald	UC Davis	Salt-Tolerant Alfalfa
Dr. Eric Brennan	USDA-ARS (Salinas)	Effect of Cover Crop Variety and Seeding Rate and Supplemental Fertilization on Yield, Weed Management, Nitrate Leaching, Soil Quality, and Profitability of Organic Cool-Season Vegetable Production on the Central Coast
Dr. Carlos Crisosto	Kearney Ag Center	Evaluation of Food Additives and Low Toxicity Compounds as Alternative Chemicals to Synthetic Fungicides for Control of the Main Post-Harvest Diseases of California Stone Fruits
Dr. Kent Daane	Kearney Ag Center	Importation and Host Range Testing of Parasitoids that Attack the Olive Fruit Fly
Dr. Maria De la Fuente	UC Coop. Extension (Santa Clara Co.)	Developing Technology to Grow Mushrooms from Recycled Urban Waste, Food Scraps, and Paper Waste
Dr. Richard Evans	UC Davis	Improvements of Methods for Vegetative Propagation of California Native Plants
Dr. Mark Gaskell	UC Coop. Extension (Santa Barbara Co.)	Development of Off-Season Fresh Market Blueberries as a New Crop for Coastal California
Dr. Kenneth Giles	UC Davis	Precision Weed Control for Organic Vegetable Growers
Dr. Mark Hoddle	UC Riverside	Assessing Organic Mulches for Thrips Control in Avocado Orchards
Dr. Louise Jackson	UC Davis	Nutrient Management and Soil Microbial Ecology for Organically-Grown Fresh-Market Tomatoes
Dr. Steven Koike	UC Coop. Extension (Monterey Co.)	Investigation of Organic Seed Treatments for Spinach Disease Control
Dr. A. J. Lukaszewski	UC Riverside	Development of Intergeneric Hybrids of Ryegrasses with Fescues as New Cool Season Turfgrasses for California
Dr. Themis Michailides	Kearney Ag Center	Efficient Determination of Spore Inoculums Potential of Brown Rot Pathogen in Stone Fruit Orchards by Using Molecular Techniques
Dr. Jeffery Mitchell	Kearney Ag Center	Does Conservation Tillage Reduce Dust Emissions in Central Valley Specialty Crop Rotations?
Dr. Calvin Qualset	UC Davis	Development and Extension of New Barley Varieties for Human Consumption in California
Dr. Frank Zalom	UC Davis	Ecological Management System for Controlling Olive Fruit Fly in California Olives



# SPECIALTY CROP INITIATIVE

## \$2.9 Million Grant Creates the California Institute for the Study of Specialty Crops

Few would disagree that California specialty crop producers are finding it more and more difficult to remain competitive in today's economy. While production values are on the rise, the return to farmers and ranchers is shrinking. Net profits were down 42 percent from \$6.4 billion in 1997 to \$3.7 billion in 2001.

Although California has been the nation's agricultural leader for half a century, we cannot afford to take that success for granted. Multiple factors are shaping the state of agriculture in California—rising production costs, trade policy, global competition, regulations and consumer demands. In order to navigate these issues and build a viable future for agriculture, legislators and policy makers need access to the best research available. This is the concept behind the California Institute for the Study of Specialty Crops.

**A**lthough California has been the nation's agricultural leader for half a century, we cannot afford to take that success for granted. Multiple factors are shaping the state of agriculture in California—rising production costs, trade policy, global competition, regulations and consumer demands.

### CALIFORNIA INSTITUTE FOR THE STUDY OF SPECIALTY CROPS ADVISORY BOARD

Edwin Camp	Bakersfield	Grapes, vegetables
Robert Crudup	Sunol	Nursery
Steve Danna	San Jose	Fruits, nuts, grains, vegetables
Ron Fisher	Modesto	Almonds, walnuts
David Gill	King City	Vegetables
Bob Gray	Salinas	Vegetables
Bob Grimm	Bakersfield	Citrus, vegetables
John Hayashi	Arroyo Grande	Vegetables
A.G. Kawamura	Irvine	Strawberries, vegetables
Joe MacIlvaine	Bakersfield	Almonds, pistachios, pomegranates
Dana Merrill	Paso Robles	Winegrapes
George Soares	Hanford	Dairy
Bruce Taylor	Salinas	Vegetables
Jeri Hansen	Lodi	Winegrapes, beef cattle
Ellen Sanders Way	La Quinta	Vegetables

The purpose of the interdisciplinary institute is threefold:

1. To conduct applied research on economic, policy and regulatory issues related to California specialty crop industries.
2. To conduct outreach to disseminate research findings among agricultural organizations and associations, legislators, policy makers, government agencies, and other stakeholders.
3. To provide hands-on education for undergraduate and graduate students.

The institute will be housed at the College of Agriculture at California Polytechnic State University (Cal Poly) in San Luis Obispo. The Dean of the College of Agriculture will coordinate research projects in cooperation with instructional departments, including agribusiness, animal science, horticultural and crop science, natural resource management, bioresource and agricultural engineering, food science and nutrition, and political science. The institute will also collaborate with other entities within the California State University and University of California systems.

Besides research, another major component of the institute is outreach. The institute will publicize its findings among stakeholders in order to initiate a public dialogue centered on California's agricultural economy, its problems and potential solutions. The institute will also strive to be a credible source for media and decision makers seeking information about the specialty crop economy and related policies.

The institute also offers undergraduate and graduate students the opportunity to engage in academic research consistent with Cal Poly's "learn by doing" philosophy.

The institute will be housed at the College of Agriculture at California Polytechnic State University (Cal Poly) in San Luis Obispo.

# CALIFORNIA AGRICULTURAL RESEARCH INITIATIVE

## **\$2.7 Million Grant to CSU Fresno to Manage an Applied Research Grants Program**

CDFA awarded \$2.7 million to the California Agricultural Technology Institute (CATI) at California State University, Fresno to administer a competitive grant program through its Agricultural Research Initiative program (ARI).

### **CALIFORNIA AGRICULTURAL TECHNOLOGY INSTITUTE**

CATI is a non-profit, applied agricultural and environmental research and educational institution in the California State University system. CATI develops and evaluates promising new technologies that have the potential to improve agriculture's economic performance, sustainability and environmental sensitivity. CATI is internationally recognized as a center of excellence. Its projects and programs provide immediate and practical solutions for priority issues challenging California agriculture.

### **THE CALIFORNIA STATE UNIVERSITY'S AGRICULTURAL RESEARCH INITIATIVE**

The ARI is an applied agricultural and natural resources research partnership among the CSU's four colleges of agriculture (California State University, Fresno; California Polytechnic State University, San Luis Obispo; California State Polytechnic University, Pomona; and California State University, Chico) and the University of California. The collective expertise of faculty and research staff is focused on finding immediate and practical solutions for high-priority problems. Research areas include:

- Agricultural business
- Biodiversity
- Biotechnology
- Food safety, nutrition, processing, and new product development
- Natural resources
- Production and cultural practices
- Public policy analysis
- Water and irrigation technology

The collective expertise of faculty and research staff is focused on finding immediate and practical solutions for high-priority problems.

## Agricultural Research Initiative Projects:

Lead Researcher	Affiliation	Project
Dr. Michael Costello	Cal Poly SLO	Interactions Among Weeds, Ants and Obscure Mealybug on the Central Coast
Dr. Dave Goorahoo	CSU Fresno	The Impact of Air Injection into Water Delivered through Subsurface Drip Irrigation Tape on the Growth and Yield of Melons
Dr. Dave Goorahoo	CSU Fresno	The Impact of Air Injection into Water Delivered through Subsurface Drip Irrigation Tape on the Growth and Yield of Tomatoes
Dr. Sanliang Gu	CSU Fresno	Feasibility of Air Injection under Subsurface Drip Irrigation for Improving Vine Performance, Fruit Quality, and Irrigation Efficiency in Cabernet Sauvignon Grapevines
Dr. David Headrick	Cal Poly SLO	Ecological Studies and Natural Enemy Evaluations for Citrus
Dr. Bert Mason	CSU Fresno	Assessing the Growing Role of Air Freight in Serving Foreign Markets for California Specialty Crops
Dr. Florence Sharmasarkar	CSU Fresno	Open-Field CO2 Enrichment Using Drip Irrigation Systems
Dr. Florence Sharmasarkar	CSU Fresno	Assessing Spatial and Temporal Variability of Soil Salinity on Farms Implementing Drainage Management Practices
Dr. Lal Singh	CSU Chico	Application of Emerging Technology to Harvesting of Olives
Dr. David Still	Cal Poly, Pomona	Phenotypic Characterization and Genetic Mapping of Expressed Sequence Tags in Lettuce
Dr. Roy Thornton	CSU Fresno	Characterization of the Flavor Spoilage Potential of Different Strains of Dekkera/Brettanomyces (yeast in wines)
Dr. Roy Thornton	CSU Fresno	Effect of Vine Root Aeration on Raisin Productivity
Dr. Roy Thornton	CSU Fresno	Evaluation of Factors Affecting the Occurrence of Sluggish or Stuck “High-Density” Wine Fermentations
Dr. Robert Wample	CSU Fresno	Improving Cultural Practices for Producing Premium Quality Cabernet Sauvignon Fruit and Wine in California’s San Joaquin Valley



# QUARANTINE & PEST RISK ANALYSIS

## \$760,000 Grant to Sharpen California's Response to Invasive Agricultural Pests

The CDFA Plant Health and Pest Prevention Services Division has begun three major projects to augment the agency's ability to respond to invasive agricultural pests:

1. Exotic Fruit Fly DNA Analysis at the CDFA Plant Pest Diagnostics Laboratory
2. Trace Element Analysis and Database Center for Analytical Chemistry
3. Quarantine Treatment Research and Development by the CDFA Pesticide Consultation Branch

New technologies under development in these projects will benefit a wide range of specialty crop growers in California. The projects were selected based on their ability to rapidly deliver results that would translate into measurable improvements for producers.

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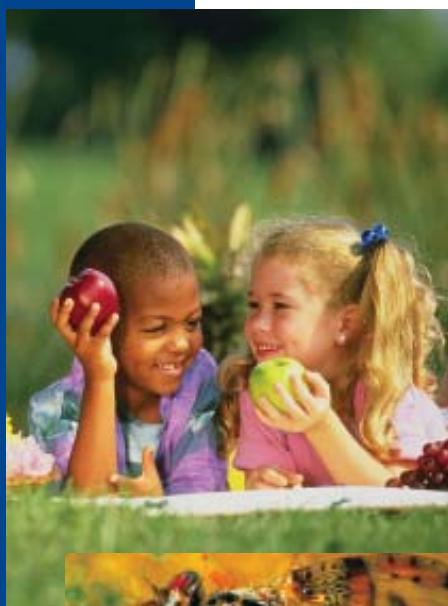
### 1. EXOTIC FRUIT FLY DNA ANALYSIS

CDFA will capitalize on this opportunity to improve its pest exclusion program by identifying pathways of entry for exotic fruit flies. Recent research has focused on developing procedures that use unique portions of the genetic material (DNA) of exotic fruit flies to answer a key question: *Where do the exotic fruit flies detected in California originate?*

Once CDFA can quickly and accurately identify the origins of exotic fruit flies trapped in the state, the department can move effectively to direct exclusion activities and resources to interdict these pests at points of entry, bolstering the state's first line of regulatory defense.

At the present, DNA analysis of exotic fruit flies trapped in California is performed at university laboratories in Hawaii and Pennsylvania. The university scientists have developed

DNA techniques that can now be transferred to CDFA scientists. A three-year project will develop the necessary infrastructure, recruit scientific expertise, and complete the requisite research and implementation of molecular protocols. In the first year, one lab will be retrofitted with appropriate equipment and supplies. A postdoctoral scientist with a strong background in DNA technology will be brought on-board to set up the lab, identify work priorities and implement strategies. In years two and three, diagnostic protocols will be developed and implemented.



### Benefits

This project will enhance the department's ability to respond to pest threats. During 2001, for example, CDFA trapped five distinct species of exotic fruit flies that would threaten the state's agriculture. These detections resulted in 15 eradication programs and three quarantine zones. If any of these species were to become established, the impact on the agricultural community from direct losses, foreign embargoes and domestic quarantines would range in the hundreds of millions of dollars annually.

Technology transfer to the department will allow CDFA to obtain results faster and improve its capability to identify exotic organisms and help pinpoint their origin. Discerning the origins of these pests will greatly enhance the scientific community's knowledge of fruit fly invasion biology, which, in turn, will allow more rapid and efficient response with more focused resources.

## 2. TRACE ELEMENT ANALYSIS AND DATABASE CENTER FOR ANALYTICAL CHEMISTRY

Every day, hundreds of agricultural shipments arrive in California's ports of entry. The origins of these commodities may be traced through container labels and contents, identification of surface pests, and review of entry documents. None of these methods is foolproof, and all are inadequate in some cases. Case history shows that prohibited products can be repacked, mismanifested, comingled with products from acceptable areas of origin, or may arrive under any of a number of other misleading circumstances, intentional or otherwise.

The U.S. Customs Service, in an effort to resolve certain tariff issues, has developed the ability to determine the origin of agricultural products by testing for trace elements that are incorporated into the plant from the growing soil. A trace element database can be developed to index samples against known standards to determine country or area of origin. Customs Service chemists have agreed to share the analytical methods with CDFA's Center for Analytical Chemistry, and the department's lab is equipped with most of the equipment needed to process samples, so this project can be implemented relatively quickly.

### Benefits

This project will strengthen the department's pest prevention program and make it the first plant regulatory program to incorporate chemical analysis to identify the origins of prohibited plant commodities. The development of this capability and the corresponding database would upgrade the state's anti-smuggling/interdiction efforts to detect exotic fruit flies and other plant pests.

Customs Service chemists have agreed to share the analytical methods with CDFA's Center for Analytical Chemistry, and the department's lab is equipped with most of the equipment needed to process samples, so this project can be implemented relatively quickly.

### 3. QUARANTINE TREATMENT RESEARCH AND DEVELOPMENT

During the 1999 Mexican fruit fly quarantine in the Fallbrook area of San Diego County, growers of exotic and minor fruits were not allowed to move their crops from the quarantined area for sale because no treatments existed to disinfest fruit of Mexican fruit fly larvae. The resultant losses to growers were substantial, and the situation highlights the urgency and importance of making quarantine treatments available to address exotic pest infestations. A similar experience in nearby Valley Center in 2002-03 caused similar losses, and underscored the need to identify possible solutions and expedite their development.

Quarantines have long been employed to serve a proven purpose—to limit the spread of a pest or disease so that growers outside the infested area may continue growing and harvesting their crops. The quarantine process also serves to scientifically define and monitor the affected area so that an effective eradication effort can be carried out. For the growers outside of the quarantined area, the protection provided by a quarantine is invaluable and necessary to preserve the long-term viability of the affected crops and farms. For those inside the quarantine limits, though, the short-term costs and hardships are difficult to bear. For these growers, relief in the form of approved quarantine treatments is an important and worthwhile goal.

#### Benefits

Developing quarantine treatments for minor crops will aid specialty crop growers by allowing them to continue conducting business while cooperating with the often rigorous requirements of a quarantine. The need to safeguard California's diverse landscape from invasive pests can be met without undue hardship to minor crop growers if we can identify the necessary tools that have been missing in past occurrences.

**D**eveloping quarantine treatments for minor crops will aid specialty crop growers by allowing them to continue conducting business while cooperating with the often rigorous requirements of a quarantine.

# BUY CALIFORNIA INITIATIVE

## COMPETITIVE GRANTS

These competitive grants have leveraged approximately \$5.6 million in matching funds and in-kind contributions from the agricultural community, signaling significant support for this innovative program to aid specialty crop growers.

### (\$6.6 MILLION)

The Buy California Initiative includes a \$6.6 million competitive grants program to fund innovative ideas for projects that would benefit smaller segments of the industry. CDFA received well over 700 requests for applications. A panel of agricultural specialists carefully screened and scored each proposal before sending their recommendations to CDFA Secretary William (Bill) J. Lyons, Jr. The following 50 proposals were chosen for funding, and have generated an additional \$5.6 million in matching or in-kind contributions.

CDFA staff keeps track of each project by staying in contact with researchers and other principals, and by conducting site visits, audits and other means of review. The following summaries provide the goals and progress of each project funded by the initiative.

#### **AGRICULTURAL LITERACY PROJECT: CAL POLY SAN LUIS OBISPO, \$280,000**

This project builds on Cal Poly's development of a new curriculum guide for agricultural literacy, in cooperation with the Ag Network and Ag in the Classroom. The goal of the project is to familiarize teachers with the new guide so they can integrate agricultural education with core subjects (math, science, English, history) in K-12 classrooms statewide. The Cal Poly Department of Agricultural Education and Communication will develop and enact a plan to distribute the new guide using a Web site, introductory materials, workshops, seminars and in-service meetings. The staff and cooperating nonprofit groups have invested significant time and effort in the development of the curriculum, and are offering \$201,052 in matching contributions of funds, staff time and other costs to see the project through the critical dissemination phase. Project supporters include the San Luis Obispo County Office of Education, the Foundation for Agriculture in the Classroom, and the Agricultural Network.

#### **FARM WORKER SAFETY: C.S.U. FRESNO, \$280,000**

The "Farm Worker Motor Vehicle Safety Education Project" is supported by local growers, farm labor advocates and worker safety groups. The project will provide an aggressive public education campaign on motor vehicle safety targeting the monolingual Spanish-speaking farm-worker population in Fresno and Tulare counties. The project's goal is to reduce the number of motor vehicle crashes, fatalities and serious injuries suffered by farm workers and other rural residents. The research team has begun to analyze accident data from the California Highway Patrol and the Annual Report of Fatal and Injury Motor Vehicle Traffic Collisions. A project planning committee has formed and begun meetings to govern the grant's progress. This proposal is supported by the Nisei Farmers League, the California Tree Fruit League, Ag Safe, and Farm Labor Contractors for Safety and Compliance. Matching funds of \$2,125 have been generated to date.



## **SUSTAINABLE WINEGROWING PRACTICES: WINE INSTITUTE & CALIFORNIA ASSN. OF WINEGRAPE GROWERS, \$280,000**

An industry-sponsored effort began in November 2000 to develop a “code of sustainable winegrowing practices,” with a goal of encouraging voluntary adoption of high standards of stewardship and crop management by growers. This grant enabled the group to complete its work on the code and produce and distribute a self-assessment workbook in early 2003. Next steps for the remainder of 2003 are to publicize the program and track vineyard and wine assessments in a relational database, establish a baseline level of adoption of the sustainable practices, and provide feedback to participating growers and vintners. Success with this project could easily be extended to table grape and raisin growers as well. This grant leverages \$596,200 in matching funds and in-kind contributions from the Wine Institute and cooperating consultants. The Wine Institute is an association of more than 605 California wineries and affiliated businesses that represent about 92 percent of California wine shipments and 80 percent of all U.S. wine shipments. The project enjoys broad support from industry associations and wineries throughout the Golden State.

## **SUPPORT FOR “CALIFORNIA HEARTLAND” TV PROGRAM: KVIE, \$275,000**

This public broadcasting program has covered agricultural topics since 1996, but faces a funding shortfall. This grant, along with \$1,068,032 in matching funds from other sponsors, has helped maintain the program’s production schedule. Producers have exceeded their goal of 100 new segments planned as part of this grant project, producing 115 segments to date. Many of these segments have already aired, and the new material has resulted in rising ratings for the program. Weekly viewership is estimated at 800,000. Support letters for this grant were received from the California Avocado Growers, the California Canning Peach Association, the California Grape & Tree Fruit League, Blue Diamond Growers, Sunkist Growers, California King Salmon, Cal Poly Pomona School of Agriculture, the Southland Farmers Market, and individual growers and citizens.

## **EDUCATION/OUTREACH ACTIVITIES: ALLIANCE FOR FOOD & FARMING, \$250,000**

This proactive outreach project includes collaboration with the California Foundation for Ag in the Classroom to create a teacher’s guide on food safety and a corresponding section on the organization’s Web site. The project’s progress to date includes presentation of an exhibit at the California Dietetic Association Convention in April 2003. Future projects include production of a food safety information card, and activation of a toll-free food safety hotline. The alliance, a coalition of 60 general ag and commodity organizations representing over 100,000 growers, has committed \$150,000 in matching funds.

## **PEST MANAGEMENT STRATEGIES FOR OLIVE FRUIT FLY: CALIFORNIA OLIVE COMMITTEE, \$250,000**

This research project seeks to determine seasonal population dynamics of the olive fruit fly in California, and to use the information to develop a model to predict changes in the population so that growers may effectively time their pest management activities in olive orchards. Trapping sites and varieties have been selected and personnel trained so that trapping data can be collected throughout the coming year. This data will be used to establish host susceptibility, critical damage periods and other valuable information. The olive fruit fly was first discovered in California in 1998 and has spread to all areas of the state where olives are grown. Because there is low tolerance for damage for both table olives and those used for oil, it is critical that pest management strategies be developed for this pest. More than 40 growers and agricultural organizations submitted letters of support for this project, exhibiting support not only from the olive growing and processing community, but also from academia, local governments and groups representing multiple commodities. This project has generated \$67,857 in matching funds.

## **EDUCATIONAL PROGRAMS FOR NEW AGRICULTURAL WING AT THE NATIONAL STEINBECK CENTER, \$250,000**

The National Steinbeck Center has quickly become a jewel of the Central Coast community. This project will contribute three new educational programs at the center’s newly created Ag History and Education Center in Salinas. The center’s staff has begun work on all three of the project’s goals: (1) curriculum is completed and recruiting has begun for an “Adventures in Agriculture” program to attract high school students to the agriculture profession and teach them about local agriculture; (2) design and prototyping is underway for the “Ag-Econ Challenge,” an interactive computer program accessible on the Web and designed to teach high school students about the economics of raising crops; and (3) a leadership committee has been selected and has identified speakers and panelists for the “Ag Forum,” a four-event series to educate the Central Coast public about local agricultural issues. Supporters of this grant include the Grower-Shipper Association, State Senator Bruce McPherson, C.S.U. Monterey Bay, the Monterey County Agricultural Commissioner, the Mission Trails Regional Occupational Program, Mann Packing Co., Inc., and local growers.

### **AGRICULTURAL EXHIBITS AT THE LEARNING CENTER: INTERNATIONAL AGRI-CENTER, TULARE, \$250,000**

The "Learning Center," housed at the International Agri-Center in Tulare, will develop museum-quality, hands-on, indoor and outdoor exhibits; a demonstration farm; curriculum and classroom materials; and an aggressive marketing campaign. Initial design of the exhibits is under way, with production set to begin in fall 2003 and completion in summer 2004. With over 23,000 youths visiting the center over the past 18 months, the potential for delivering targeted agriculture education messages via this project is promising. The grant will be aided by in-kind contributions of \$170,000. Supporters include Tulare County Agricultural Commissioner Gary Kunkel, the California Minor Crops Council, the Tulare County Farm Bureau, the Tulare County Office of Education, The Tulare-Kings Hispanic Chamber of Commerce, California Women for Agriculture, the California Farm Water Coalition, the California Asparagus Commission, the Olive Growers Council of California, the Economic Development Corp., and several local growers.

### **ECONOMIC IMPACT OF CITRUS INDUSTRY IN CALIFORNIA: CALIFORNIA CITRUS MUTUAL, \$225,000**

Economic analysis of the benefits of citrus farming to California will be used to develop an industry outreach program, to be piloted in the San Joaquin Valley. The project has completed its economic impact report and begun developing educational messages for the selected pilot project region. By developing sound economic data and disseminating it to consumers and the decision-making audience, the project seeks to provide information that Californians need to make wise choices regarding the future and value of agriculture. The educational program also will include consumer kits, videos and a Web site. If the pilot is successful, the industry will carry the message to other markets. In the second phase of this project, the group will upgrade the weather forecasting system by purchasing equipment and services to develop a Central California Weather Watch Web site that will provide real-time forecasting for 17 reporting stations. Citrus Mutual will provide \$43,950 in matching funds.

### **ALTERNATIVES TO METHYL BROMIDE: CALIFORNIA STRAWBERRY COMMISSION, \$200,000**

Despite ample research for several years, non-chemical alternatives to methyl bromide have yet to give consistent results. With the 2005 phaseout of this fumigant fast approaching and a 70 % phase-down coming in 2003, the best short-term solution is to focus on the most promising alternatives. Prior research has identified a handful of products tested in varying conditions. This research project has allowed the commission to begin testing these alternatives under actual production conditions so growers can refine application methods to make the alternatives usable under commercial conditions and acceptable under pesticide regulatory requirements. California's strawberry crop represents 83% of the nation's total. Matching funds of \$200,696 have been contributed for this project.

### **MITIGATION OF NURSERY RUNOFF: U.C. RIVERSIDE & ORANGE COUNTY, \$200,000**

This two-year project began early in 2003 with soil and runoff sample collection at a 120-acre nursery near Irvine. The goal of the project is to define the pathways and fate of pesticides in runoff from greenhouse operations. The data will be used to develop and disseminate environmental mitigation practices that all nursery operators can use to control runoff and meet state and federal total maximum daily load (TMDL) standards. The field work at the Irvine nursery will be supported by lab work at U.C. Riverside. Education and outreach to disseminate the findings are planned through commodity groups, the U.C. farm advisor system, and other workgroups and agencies.

### **SOIL CARBON SEQUESTRATION: KEARNEY FOUNDATION & U.C. DAVIS, \$175,000**

This grant creates a repository of funds to support four research projects, with matching funds of \$175,000 to be provided by the Kearney Foundation. This cooperative effort will help develop the cutting-edge tools and information needed to implement soil carbon sequestration for specialty crops. Increasing the carbon in soils provides agricultural and environmental benefits such as improved water capacity and retention, infiltration rates and soil health; reduced erosion and reduced input of pesticides and other treatments for production; and reduced labor costs with less tillage and improved air quality with less fuel consumption. By developing this ability, specialty crop agriculture may also take advantage of an emerging carbon credit market. Project supporters include the California Association of Family Farmers, the Kings County Cooperative Extension, and the California Energy Commission.

### **NEW CROP DEVELOPMENT: U.C. REGENTS / U.C. SMALL FARM CENTER, \$150,000**

A collaborative effort by farm advisors and academic specialists, this project has begun research on niche crops such as blueberries, thornless blackberries, chili peppers, edamame, various cultivars of Mediterranean and Central Asian melons, pitahayas, guavas, nopales, tomatillos, oca, and water chestnuts. The project will define the “best practices” of production and post-harvest for these new crops in various geographic and agroclimatic regions of California. In addition, farm advisors will provide one-on-one field consultations, field days and topical workshops for growers based on the findings of the research. The project is coordinated by the University of California Small Farm Center. Extension specialists at various farms and research stations will screen for adaptability of the crops and will also consider post-harvest and marketability factors, including consumer acceptance. This project primarily benefits smaller farmers aiming for niche markets. These niche crops are farmed primarily by small farmers, who account for more than 80 percent of California’s growers. The U.C. system will provide in-kind contributions of \$65,200. Project supporters include USDA’s National Program Leader for Small Farms, the Davis Farmers Market, the Hmong American Community, Inc., the California Fuyu Growers Association, the Agricultural Society of San Diego, and several individual growers, packers and processors.

### **LETTUCE DISEASE RESEARCH: U.C. DAVIS & USDA COOPERATIVE EXTENSION (SALINAS), \$150,000**

California annually produces 70-75 percent of the U.S. lettuce crop with a farmgate value of approximately \$1.5 billion. The sudden appearance of verticillium wilt on lettuce poses a serious threat to California growers. Despite attempts to control the disease, it has spread into the Salinas Valley. Yield loss in affected fields approaches 100 percent. Control methods of fumigation and/or crop rotation are expensive or ineffective. Project staff have begun studies to develop a laboratory technique to evaluate disease resistance in lettuce. Once this step is completed and the techniques optimized, the project will proceed to screen a large number of lettuce germplasm and breeding lines for resistance, and communicate the results of their work to the grower community through the California Lettuce Research Board. Upon completion of the project (projected September 2004), leaders intend to refine their work sufficiently to allow growers to select disease-resistant breeding stock for commercial lettuce plantings. The California Lettuce Research Board has identified \$105,000 in matching funds.

### **FLORAL MARKET DEVELOPMENT: CALIFORNIA CUT FLOWER COMMISSION, \$150,000**

California is the source of approximately 65 percent of the United States’ fresh-cut flowers and foliage with an annual farmgate value of \$330 million. Growing global competition in the floral market prompted this proposal, which will educate retail florists and consumers about California’s specialty flower producers. The industry feels a need to move from an “order taking” posture to a more proactive planning and marketing effort, in keeping with the “Buy California” message. The California Cut Flower Commission will print and distribute a desktop reference book for wholesale florists and supermarket floral buyers, “Your Guide to Sourcing California Cut Flowers” as well as a booklet for retail florists, “Your Guide to California Cut Florists.” Support was voiced for this project by the California State Floral Association and several nursery growers and floral companies.

### **GROWER EDUCATION–AGRICULTURAL RULES & REGULATIONS: STATE CENTER COMMUNITY COLLEGE DISTRICT, \$150,000**

New and changing rules, laws and regulations involving labor, housing, transportation and the environment present an ongoing challenge for farmers. This project has organized, promoted and conducted the first of several seminars to give growers a one-stop opportunity to learn the current rules on these critical subjects. Collaborators include Sun-Maid Growers and the Nisei Farmers League. The goal of the pilot program is to reduce violations and improve farming operations. The project has generated in-kind and matching contributions of \$22,954. Grant supporters include the Raisin Bargaining Association, the Nisei Farmers League, and Sun-Maid Growers.

### **NEW SENSOR FOR IN-FIELD EVALUATION OF FRUIT QUALITY: U.C. DAVIS, \$150,000**

This cutting-edge project will develop a new sensor, based on magnetic resonance technology, to enable growers to evaluate fruit damage and other quality characteristics in the field. The technology is applicable to many commodities, including citrus, pears, apples, tomatoes, melons, stone fruit and avocados. The device would allow rapid detection of the onset of freeze, mold, over-maturity and other factors useful for determining harvest timing, reducing waste, and maximizing crop quality and value. Consumers will enjoy higher-quality fruit, growers will gain a valuable new tool, and California’s citrus producers will improve their competitive standing in the international market. This grant will leverage an additional \$200,000 in research and development funds from its cooperators: Citrus Research Board, Fresh Express, Paramount Citrus Association, and Quantum Magnetics.

### **PRE-INSPECTION/ON-SITE INSPECTION OF APPLE EXPORTS TO MEXICO: CALIFORNIA APPLE COMMISSION, \$150,000**

Mexico's largest consumer markets such as Mexico City, Monterrey and Guadalajara have an existing demand for California apples. California's grower community has developed relationships with supermarkets in Mexico and needs this program to enable the transfer of their shipments across the border. The grant will develop a pre-inspection/on-site inspection program and fund a coordinator in Mexico to initiate the export process. This program will create immediate shipments of apples into Mexico, and could lead to similar programs for additional commodities. Shippers will contribute the costs of cold-storage facilities, and annual costs of \$151,221 would revert to the industry in the third year of the project and beyond. This project has gained the support of the California Technology, Trade and Commerce Agency and the American Embassy's Agricultural Trade Office.

### **FIELD TEST AUTOMATIC WEED CONTROL SYSTEM: U.C. DAVIS, \$150,000**

For organic farmers and those seeking to reduce hand labor and chemical use in their fields, weed control is often cited as a primary obstacle. This pilot project has begun field testing an automatic system to control weeds using a tractor-mounted system with precise video and Global Positioning System (GPS) guidance to locate weeds, triggering a precise dispenser to apply either organic herbicides or hot liquids to control weeds thermally. Field testing is scheduled to continue through June 2004. The California Tomato Research Institute and Small Planet Foods, an organic subsidiary of General Mills, have expressed their support of this project. Matching funds of \$218,000 have been provided to augment this grant.

### **CITRUS PEELMINER CONTROL: U.C. RIVERSIDE, \$150,000**

The citrus peelminer is a native insect in California that, until recently, lived up to its name by sticking primarily to citrus. During the past two years, though, it has expanded its "host range" to include grapes, cotton, beans, peppers and ornamental nursery plants. This grant will benefit a wide array of growers, and will generate in-kind funding of \$218,734 from cooperating organizations such as the university's Cooperative Extension and the agricultural commissioner's office. Growers and researchers have identified this complementary set of projects to study the biology of the pest, develop a pheromone for pest management, implement a biological control program and develop a GIS mapping component to track pest presence and concentration in crops. Research has begun, and completion is set for Fall 2004. Supporters include the Fillmore-Piru Citrus Association, the California Table Grape Commission, Sunkist, Bee Sweet Citrus, Inc., and other growers.

### **FOOD SAFETY PROGRAM FOR AVOCADO PRODUCTION: CALIFORNIA AVOCADO COMMISSION, \$150,000**

The California Avocado Commission, in cooperation with the University of California Cooperative Extension, has begun developing a "Good Agricultural Practices" manual as part of an overall food safety program for the avocado industry. The first draft of the manual has been distributed for review. Once the final manual is completed, it will be published on the Internet and used as the basis for grower workshops. With this pilot project, the California avocado industry aims to ensure and demonstrate that its commodity is produced under conditions and processes known to minimize the risk of microbial contamination. The program addresses both growing practices and handling processes during production, harvest and transportation. Growers and industry representatives support this concept, which will provide an excellent marketing tool while assuring consumers of the safety of this agricultural product. Other commodity groups could follow the example of this program and realize similar benefits. This grant generated \$50,495 in matching funds.

### **TRADE LAW PROTECTIONS FOR IMPORT-SENSITIVE CROPS: C.S.U. FRESNO, \$150,000**

This research grant will identify current and potential California specialty crops whose marketability may be lessened by increasing foreign imports. Project staff have completed the first phase of their work, publication of a report identifying regional and temporal trade flows and pricing patterns of import-sensitive commodities in California. Subsequent phases will include reports on the current state of trade-remedy law and case studies of conflict resolution involving these commodities; publication of survey and interview results with California specialty crop producers and others who have direct experience with import competition; and finally, a plan to improve the options available to California producers who face market injury from import surges. Industry support from organizations such as the Grower Shipper Association, the California Grape and Tree Fruit League, the California Asparagus Commission and others indicates broad agreement that this emerging issue merits prompt and focused analysis. Project leaders have identified an additional \$36,000 in matching funds to augment this grant.



### **MARINE STEWARDSHIP COUNCIL CERTIFICATION FOR SALMON FISHING: CALIFORNIA SALMON COUNCIL, \$125,000**

This pilot project seeks to certify California Chinook “King” salmon fishing as sustainable under guidelines established by the Marine Stewardship Council. Assessment of fisheries has begun, and Scientific Certification Systems, Inc. has been retained. By meeting these requirements, California salmon fishermen and marketers selling California-caught wild salmon would gain access to national and international markets that have been systematically closed. Alaska’s state government underwrote a similar certification project in 1999. The World Wildlife Fund and the Pacific Coast Federation of Fishermen’s Associations support this project.

### **ENVIRONMENTALLY SOUND AGRICULTURAL PRACTICES: U.C. SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION PROGRAM (SAREP), \$100,000**

This pilot project will assist producers of dried plums, walnuts, citrus and forage crops in adopting economically and environmentally sound agricultural practices. By taking advantage of tools already developed and validated by a core group of growers, this project offers an excellent opportunity to enhance adoption of sustainable practices. The proposal includes a farmer-to-farmer outreach initiative, creation and refinement of key educational tools, and assessment of the effectiveness and impact of the outreach efforts. Local “adoption teams” have organized outreach workshops for growers and have started work on educational tools such as “Dairy Manual” on dairy/forage and dairy manure management. This information will be shared with producers at outreach events in late 2003 and throughout 2004. The project will generate \$33,078 in matching funds. The project received letters of support from many growers, as well as the California Dried Plum Board, the Walnut Marketing Board, Western United Dairywomen, and the Community Alliance with Family Farmers.

### **EXPANDED AGRICULTURAL RESOURCE CENTER: MONTEREY COUNTY AG EDUCATION, INC., \$100,000**

The grantee, in partnership with NASA and Hartnell Community College’s Agriculture Department, has conducted the first west coast seminar, “NASA and Space Agriculture in the Classroom.” The college provided facilities at no cost for 50 educators and specialty crop industry representatives to attend five Ag In Space demonstrations: “Farming In Space” provided K-12 curriculum allowing students to work online and in a laboratory setting to conduct plant growth experiments; “Cleaning Gray Water” provided instruction to devise ways or reusing or producing water in a space environment; “Space Explorers” focused on plant biology, space farming and nutrition during space travel; “Introduction to Vertical

Hydroponics” taught methods of hydroponic farming outside of the normal “field” environment; and the final demonstration, “Space Ag in the Classroom,” informed attendees of additional Ag in the Classroom projects and resources available for educators. This project has enabled the Ag Resource Center operated by Monterey County Agricultural Education, Inc. (a nonprofit) to expand its current educational offerings to thousands of K-12 students each year. Four of the demonstrations were videotaped as part of this grant, and have been posted on the Web site and made available to educators and the public. Letters of support for this project poured in from elected and appointed representatives including Monterey County Agricultural Commissioner Eric Lauritzen, Monterey County Supervisors Judy Pennycook and Louis Calcagno, and Monterey County Superintendent of Schools W.B. Lindley; U.C. Cooperative Extension, and growers and farming organizations including the Grower-Shipper Assn. of Central California, the Monterey County Farm Bureau, American Ag Credit, California Women for Agriculture, Snow Seed Company, D’Arrigo Brothers Company, Mills, Inc., Valley Farm Management, and Mann Packing Co. Matching funds and in-kind contributions totalling \$12,500 have been leveraged by this project.

### **WEB SITE UPDATE AND MANUALS FOR ORGANIC GROWERS: U.C. SAREP, \$100,000**

The Sustainable Agriculture Research and Education Program (SAREP), based at the University of California’s Davis campus, has already expanded its Web site for organic growers, including new updates and links corresponding to the areas to be covered by this grant project (the site is [www.sarep.ucdavis.edu/organic](http://www.sarep.ucdavis.edu/organic)). Other improvements include links to publications on the new national organic rule and details about the certification process. The program has begun to develop organic production manuals for selected commodities, including strawberries, olives, winegrapes and vegetables. SAREP will conduct “short courses” for growers based on these manuals. Project supporters include California Certified Organic Farmers, the Organic Materials Review Committee, the Organic Farming Research Foundation, and the California Organic Food Advisory Board.

### **CITRUS TRISTEZA GENETICS: U.C. DAVIS, \$100,000**

Advances in genetic work have now made it possible to pursue a new method of controlling diseases such as citrus tristeza. Researchers working on this project have already begun to employ cutting-edge procedures to modify plants’ natural defense mechanisms, with the goal of producing trees that are resistant to the disease. Currently, only partial control of citrus tristeza is possible by using certified rootstocks and through vigilance to remove infected trees. This project seeks to provide a new alternative for growers seeking better control methods. Project supporters include the California Energy Commission, the Community Alliance with Family Farmers, and U.C. Cooperative Extension.

## **MILK VENDING MACHINES PILOT PROJECT AT TURLOCK HIGH SCHOOL: MARGARET SOUZA (PARTNERSHIP WITH FUTURE FARMERS OF AMERICA), \$100,000**

The grantee has partnered with Future Farmers of America (FFA) chapters at individual schools to manage, market and promote milk sales by placing vending machines on selected high school campuses. In addition to generating obvious benefits to the dairy industry, this project gives FFA students an opportunity to manage a business and raise funds for their groups' activities. FFA chapters have applied to participate in the pilot program, and vending machines have been ordered and are being prepared for placement in the schools in Fall 2003. The project shows promise for the youth market, which has responded well to the new "chug" containers and flavored milks. The project is supported by the California School Food Service Association, the California Milk Advisory Board, the Dairy Council of California, Yosemite Farm Credit and Foster Farms Dairy.



(Photo by Ellen McIsaac)

### *Here's To Your Health*

State FFA officers join Denise Skidmore, left, and Margo Souza, right in a "milk toast" to celebrate their cooperative effort to place milk vending machines at high school campuses.

## **FEASIBILITY STUDY OF PEACH/PEAR FRUIT CUPS IN SCHOOLS: CALIFORNIA CLING PEACH BOARD/PEAR ADVISORY BOARD, \$100,000**

The California canned fruit industry is struggling to compete against lower-cost imported fruit. This project will determine the feasibility of getting peach, pear and mixed fruit cups into school food programs in California. The California canned fruit industry believes it can offer single-serving fruit cups that are shelf-stable and competitively priced. The project will culminate with demonstration tasting sessions at five schools, and a final report to CDFA on the feasibility study. Success with this project could open the door for additional commodities. The pilot project carries both nutritional and economic benefits, and enjoys broad support from growers and industry groups, local elected officials, university researchers and academia. Project supporters include the California Farm Bureau Federation, the California League of Food Processors, Del Monte, and California Pear Growers.

## **GENETIC MAPPING TO IMPROVE BREEDING OF ASPARAGUS VARIETIES: U.C. RIVERSIDE, \$100,000**

This cutting-edge pilot project will develop genetic maps in crosses between Californian and European asparagus plants. The goal is to provide information that will allow growers and researchers to more efficiently breed new asparagus varieties to increase yield and marketability of the crop. The resultant new varieties would make our growers more competitive in both

the domestic and world markets. Planting for this trial began in January 2003; once these plants produce spears, researchers will begin to extract DNA and conduct marker analysis. DNA has already been extracted from the parental clones of these plants, and analysis of markers for these samples is set to begin soon. If the project is successful, these advancements could also lead to similar efforts for other commodities. The project is supported by the California Asparagus Commission, which provided \$67,093 in matching funds.

## **DEVELOP SPECIALTY/NEW POTATO VARIETIES, PRODUCTION PRACTICES AND PACKAGING: U.C. DAVIS, \$100,000**

The California potato market has slowly decreased in acreage and number of growers in recent years. To reverse this trend growers need new and better varieties, management guidelines, and assistance with postharvest handling and packaging to better market these potatoes to the public. This pilot project has begun collecting seed potatoes from cooperating breeders and has also started collection of sample harvest data. The goal is to develop new varieties by expanding an existing program underway at U.C. Davis. Researchers also will provide recommended management practices to optimize production, and will develop packaging systems to improve marketability. Supporters include the Kern Produce Shippers Association, the Newell Potato Cooperative, and the California Potato Research Advisory Board, as well as California Oregon Seed, Inc. Matching funds of \$180,000 augment this grant.

### **TABLE-READY PACKAGING FOR WILD RICE: CALIFORNIA WILD RICE GROWERS ASSOCIATION, \$100,000**

This project will develop and deliver a quick, easy, healthy group of wild rice meals and side dish alternatives, with the goal of adding value to the wild rice produced in economically depressed eastern Shasta County. The grantee is working with Shoe Ei Foods to develop rice and rice-blend products that will be available in retort packaging (sealed to enable long-term, unrefrigerated storage) and ready-to-eat packaging. Products are scheduled to be introduced to distributors and retailers by late 2003. The project carries nutritional benefits for consumers, and is also expected to provide long-term economic benefit to the wild rice growers working cooperatively as “Fall River Wild Rice.” The packaging and marketing of this product could lead to similar projects for other agricultural commodities as producers seek to make their products more palatable and convenient for consumers. Project supporters include Shasta County Supervisor Glenn Hawes and Agricultural Commissioner Mary Pfeiffer, as well as several individual growers. This project has leveraged \$112,536 in matching funds and in-kind contributions.

### **SHELF LIFE OF NEW PEACH/PLUM/NECTARINE CULTIVARS: KEARNEY AGRICULTURAL CENTER, \$100,000**

Researchers will evaluate the shelf life of new nectarine, peach and plum cultivars and characterize these new cultivars with respect to two major flavor components: concentrations of soluble solids (sugar) and acidity. The project staff has analyzed historical quality and market life data, and has begun fruit collection and quality analysis. This work is scheduled to continue through approximately June 2004 to provide sufficient data for a full analysis. The pilot project aims to enable growers and producers to tailor specific varieties of these fruits according to consumer preferences in focused domestic and international markets. Other fruit and vegetable commodities could also adapt this project to achieve similar successes. This project complements research already funded by the California Tree Fruit Agreement and the California State University Research Initiative. Project supporters include the California Tree Fruit Agreement and Summeripe.

### **“AGADEMICS” PROGRAM FOR 5TH AND 6TH GRADE STUDENTS: ORANGE COUNTY FAIR & EXPOSITION CENTER, \$100,000**

Agademics provides a free, one-day ag educational experience for 5th and 6th grade students at a state-of-the-art working farm exhibit on the grounds of the Orange County Fair and Exposition, which provides a steady stream of over 900,000 visitors annually. Lessons include plant and soil science, animal

husbandry, the food pyramid, nutrients from fruits and vegetables, and California’s role in agriculture. This two-year grant has enabled the already proven program to enhance its messages and expand its outreach. Specifically, this grant has provided additional staff, purchase/lease of equipment, and creation of a mobile unit so that Agademics can be taken to students who cannot afford to travel to the Centennial Farm. This project has generated \$100,853 in matching funds.

### **PROMOTIONAL CAMPAIGN FOR SOCAL FARMERS’ MARKETS: SOUTHLAND FARMERS’ MARKET ASSOCIATION, \$100,000**

Certified farmers’ markets are increasingly important to many small, specialty crop farmers who rely heavily upon direct marketing. Markets and their traditionally nonprofit sponsors rarely have the resources or marketing experience to effectively develop promotional campaigns. The Southland Farmers’ Market Association is a nonprofit membership organization that represents 22 certified farmers’ markets and 350 specialty crop growers. This pilot project will allow the association to create a regional campaign to introduce Southern Californians to specialty crops available at their local farmers’ markets. The association has sent out over 80 packets to potential sub-grantees who want to participate in the program. This project has generated \$130,641 in matching funds.

### **FOOD SAFETY FOR MELON PRODUCERS/HANDLERS/PROCESSORS: CALIFORNIA MELON RESEARCH BOARD, \$100,000**

California ranks first in the nation in cantaloupe and honeydew melon production. Producer groups have embarked on a series of research projects in recent years to improve food safety efforts by producers, handlers and processors. This pilot project would complement those efforts and expand outreach efforts to educate consumers about the importance of safe handling, storage and preparation of melons. Issues such as worker health and hygiene, transportation, storage, and distribution are among the proposed topics for further research. Milestones in the project will include publishing and distributing “Key Points of Control and Management of Microbial Food Safety for Melon Producers, Handlers and Processors” and “Good Agriculture Practices” in Fall 2003. This project could easily be tailored to fit additional industries and commodities in the future. The California Melon Research Board is joined by the California Cantaloupe Advisory Board in support of this project.



## **DEVELOPING THE SCHOOL FOOD SERVICE MARKET: COMMUNITY ALLIANCE WITH FAMILY FARMERS, \$100,000**

This pilot project has begun to develop farm-to-school delivery systems in three county regions—Ventura, Sonoma and Yolo. The long-term goal is to have a statewide network of food producers, distributors and institutional buyers linked in support of California-grown products. Regional coordinators are working with school districts to identify and minimize financial and other constraints. Coordinators are also evaluating the available local commodities and matching them to demand at local schools. Farmers who tap into this network will be able to diversify their market and increase their share of the local consumers' food dollar. Project supporters include the California Institute for Rural Studies, the California Sustainable Agriculture Working Group, Sustainable Agriculture Education, the Davis Farmers Market, and individual growers. This project has generated matching funds and contributions of \$395,221.

## **AGRICULTURAL POLICY SEMINARS: CAL POLY STATE UNIVERSITY FOUNDATION / CAL POLY SLO, \$76,000**

The California Polytechnic State University Foundation, in cooperation with the Cal Poly State University, has completed the first half of this grant by offering two courses, one on agricultural policy offered in the winter quarter of 2003 and the other on agricultural policy resolution offered in the spring of 2003. These courses will be repeated in 2004 to complete the grant project. The courses have been designed by working closely with the agricultural community and government to present a wide range of perspectives on relevant agricultural issues such as pest prevention, labor, workers' compensation, water, and air quality. The course in agricultural policy resolution serves as a "capstone course" for agribusiness students, who will choose an issue and identify the best mechanisms to implement the appropriate policy. Project supporters include Pacific Coast Producers, Mission Produce, Inc., and Talley Farms. This project has generated matching funds of \$96,927 from the school, more than doubling the grant.

## **SCHOOL FIELD TRIPS TO "AGRI SCAPES" AT CAL POLY POMONA, \$75,000**

Building on the recent creation at Cal Poly Pomona of AgriScapes, a 40-acre "farm in the city," this pilot project will bring K-6 students to visit the facility and learn about the importance of agriculture. School-to-Farm field trips are scheduled from Spring 2003 through Spring 2004, including both K-8 class trips and teacher training events. The proposal also includes elements such as a spring Family 5 a Day Festival (planned for Spring 2004) and Produce of the Month at Cal Poly's Farm Store (promotions beginning Fall 2003). Visitors—as many as 15,000 a month—come from a densely urbanized part of the state where information and positive messages

about agriculture's role in society will be most informative. This project has generated \$93,931 in matching funds. Project supporters include the Western Growers Association, the Fresh Produce and Floral Council, and the California Kiwifruit Commission.

## **HEALTH BENEFITS OF TABLE GRAPE PHYTONUTRIENTS: CALIFORNIA TABLE GRAPE COMMISSION, \$75,000**

American consumers are concerned about the nutrition and health attributes of the foods they eat. Advancing scientific understanding of California grapes and their contributions to health will lead to increased demand for this important agricultural product. This grant, with matching funds of \$179,128 from and cooperating organizations, will fund three research projects to examine the link between grapes and protection against diseases such as cancer, heart disease and the aging process. Agreements are in place with the researchers, and work is set to be completed in early 2004.

## **HIGH-END MARKET FEASIBILITY STUDY FOR BEEF PRODUCERS: HIGH SIERRA RESOURCE CONSERVATION & DEVELOPMENT COUNCIL & UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION, \$70,000**

Traditionally, ranching families in the northern Sierra Nevada have had few, if any, opportunities to market beef directly to consumers, primarily due to consolidation in the beef processing sector. At the same time, recreational opportunities in the region attract a substantial number of visitors and demand for various high-end specialty products, including meals. The High Sierra Resource Conservation and Development Council and the University of California Cooperative Extension seek to address these conditions simultaneously by conducting a feasibility study and developing a business plan to develop high-end marketing opportunities for the region's beef cattle producers. The project will assist local ranchers in marketing premium beef to consumers through area resorts, restaurants and retail outlets. The council's staff has begun its assessment of the local demand for beef, the current supply of "culinary cows," and the transportation, processing and distribution demands to complete this project. The council indicates that response from local ranchers is enthusiastic, with 45 representatives attending a recent meeting to discuss the project. Preliminary data shows strong interest from local retailers and restaurants as well. Project supporters include Placer County Agricultural Commissioner Christine E. Turner, U.C. Cooperative Extension (several offices/locations), the C.S.U. Chico College of Agriculture, the Tahoe Cattlemen's Association, USDA Rural Development, Yuba-Sutter Cattlewomen, and Nevada County Agricultural Commissioner Paul Boch. This project has received \$121,457 in matching funds.

### **CONTROLLING ROOT-KNOT NEMATODE: U.C. RIVERSIDE, \$66,000**

Root-knot nematodes have traditionally been controlled in high-value crops with fumigant nematicides such as methyl bromide. Phase-out of this product and restrictions on fumigant use generally have brought on an urgent need to develop and evaluate economically viable and sustainable methods of controlling nematode damage. This project will evaluate the effect of 15 commercially available mycorrhiza products (soil-inhabiting fungi that work with crops' root systems to inhibit nematode damage). In greenhouses, researchers will screen 15 products to determine the degree of the fungi's colonization, effects on plant damage, symptom development, and root-knot nematode multiplication. The two best products will then be analyzed under field conditions. This project could provide crossover benefits to other high-value crops. Project supporters include the Melon Research Board and the California Tomato Commission.

### **SCHOOL GARDEN PROGRAM: THE AGRICULTURAL NETWORK, \$50,000**

The Ag Network will use this grant to enhance and expand its statewide program teaching students about various specialty crops through school garden programs. The project seeks to provide a steady source of ag curriculum to school gardens through a Web site, including materials and messages such as the current "Farming is Food, Fiber, Flowers and Fun," workbooks, resource guides, etc. New curriculum components on nutrition and integrated pest management are planned. This pilot project has a demonstrated history of success through collaboration with the Department of Education, the Waste Management Board, the U.C. and C.S.U. systems, the Chamber of Commerce, University Extension Service, the FARMS Leadership Program, the Huntington Library, the Community Alliance with Family Farmers and other organizations.

### **AG EDUCATION PROGRAM FOR NON-AG STUDENTS/TEACHERS: FARMS LEADERSHIP, Inc., \$50,000**

FARMS Leadership, Inc. is a leadership program for high school students modeled after the Ag Leadership Program. Approximately 270 non-ag students and their teachers participate each year in an experiential outdoor education and leadership program designed to increase understanding of agriculture in a predominantly urban population. This grant has enhanced the existing program and added school districts not previously participating. The grant has funded several FARMS "field days" at each of the program's 10 sites throughout Spring 2003, and also provided for a teacher/mentor evaluation meeting at the end of the school year. Additional "field days" and events are planned for the Fall 2003 semester. Project supporters include the U.C. Davis Vegetable Research and Information Center and Student Services and Outreach office, the Davis Joint Unified School District, Farm Advisor

Rachael Long (Yolo), Yolo County Supervisor Lois Wolk, the South Coast Resource Conservation and Development Council, the Greater San Diego County, Yolo County and Upland Resource Conservation Districts, the Agriculture Education Committee, the Cal Poly Sustainable Ag Resource Center, former USDA Deputy Secretary Richard Rominger, Butte College, and the California Dept. of Education. This grant has generated \$400,000 in matching funds.

### **PROMOTING WILDLIFE-FRIENDLY VINEYARD PRACTICES: CALIFORNIA ASSN. OF WINEGRAPE GROWERS, \$46,000**

Winegrape growers in California have developed various on-farm practices that benefit wildlife while contributing to the grape-growing process. With this grant, the California Association of Winegrape Growers (CAWG) will produce and distribute a publication highlighting these successful practices, with the goal of encouraging additional growers to implement the measures and to educate their local growers and communities about the economic and environmental compatibility of these new ideas. The project has selected and interviewed subjects for its case studies, conducted a vineyard tour in Thornton, completed the narrative, and begun the design of the publication. The focus is on wildlife issues in grasslands, oak woodlands, valley floor habitats, and marine and riparian habitats. This grant is in addition to in-kind contributions of \$42,350 from CAWG, Wine Vision, National Fish and Wildlife and a Great Valley LEGACI grant.

### **FOOD SAFETY/QUALITY ASSURANCE PROGRAM FOR POULTRY: PACIFIC EGG & POULTRY ASSOCIATION, \$31,000**

The California Egg Quality Assurance Plan is a voluntary preharvest food safety program designed to ensure product quality and safety associated with salmonella and chemical residues in eggs. The program outlines 20 core components, which form the basis of a Hazard Analysis Critical Control Points (HACCP) plan. Training, record keeping and research are integral parts of the plan. This grant covers about half of the annual cost of the program, matching approximately \$31,000 from other funding sources. Project supporters include U.C. Cooperative Extension, the California Grain and Feed Association, Pacific Compliance Services, and the California Egg Industry Association.

*NOTE: Due to the emergence of Exotic Newcastle Disease (END) in California poultry and other birds, the grantee expanded the scope of this project to include developing and disseminating new instructional components on biosecurity, nutrient management, and animal welfare. During the first quarter of 2003, the Pacific Egg & Poultry Association conducted meetings to share this information, mapped ranches infected with the disease, and held a special session at its annual convention to address producers' questions. This extra effort on the part of the association aided CDEA's own statewide program of outreach and response to this critical agricultural emergency.*



### **“AGRICULTURE DAY” FOR 1,200 YOUTH: SAN LUIS OBISPO COUNTY AGRICULTURE EDUCATION COMMITTEE, \$24,000**

This grant will enable the committee to develop and host an “Agriculture Day” event with 1,200 third- and fourth-grade students, to be held October 13, 2003 at the California Mid-State Fairgrounds in Paso Robles. The committee has set the event’s location and itinerary, advised all elementary schools in the county, and begun scheduling speakers. Prior to the big day, teachers will get their students ready by introducing an agricultural curriculum in the classroom. When they arrive at Agriculture Day, students will experience presentations, demonstrations and hands-on “make-and-take” projects. The project is aided by in-kind contributions of \$17,791, and enjoys considerable support from the local grower community and educators, including the San Luis Obispo County Office of Education and Farm Bureau, the SLO County Cattle Women, and the California Mid-State Fair.

### **DATABASE PROJECT FOR CITRUS PEST MANAGEMENT: CALIFORNIA CITRUS QUALITY COUNCIL, \$19,000**

An increasingly complex international system of setting maximum residue limits for pesticides threatens to hamper California’s exports of citrus to its trading partners. With this grant, the industry has developed a database that provides the most up-to-date information on pesticide tolerances, quarantine matters and quality and food safety issues. The council has also begun development of a Pest Management Strategic Plan which will help address pest management needs and priorities for the citrus industry, and an International Marketing Matrix to show the market impacts of changing pest and disease management tools. The results of this grant project will be published on the council’s Web site and presented at the Citrus Research Board’s quarterly research meetings, and likely at additional national and international functions. Other commodity groups may develop similar systems based on this project. The council has provided matching funds of \$10,375.

### **HEALTH EFFECTS OF ANTIOXIDANTS IN CHERRIES: CALIFORNIA CHERRY ADVISORY BOARD, \$18,000**

The board will use this grant, along with matching funds of \$6,000, to assess the antioxidant capacity of sweet cherries and their physiological effects on humans. Study subjects have been recruited, and will adhere to a strict 45-day diet while researchers measure changes due to cherry consumption. The results of this research will contribute to domestic and international marketing campaigns. The pilot project’s objectives include determining the concentrations of flavonoids and other antioxidant constituents, along with the total antioxidant activity of sweet cherries; and to examine the physiological impact on persons who consume sweet cherries. The project has generated \$16,000 in matching funds.

### **PETALUMA YOUTH AGRICULTURE DAY: 4TH DISTRICT AGRICULTURAL ASSOCIATION, \$13,000**

Partnering with the local Petaluma Chamber of Commerce, the Fourth District Agricultural Association has developed and promoted Petaluma Youth Ag Day, to take place on September 25, 2003. The event will feature a number of interactive exhibits targeted at the area’s 3,500 students. Activity Stations include Make & Take, Touch & Smell, Ag Partners, Live Animals, and the Hay Maze. This project is also supported by the Petaluma Area Chamber of Commerce and local agricultural producers. Matching funds of \$10,835 have been generated by this project.



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